

AMAZING STORIES

October, 1937

25 Cents



BEFORE ATLANTIS WAS

by

H. F. ARNOLD

NEIL R. JONES

DAVID H. KELLER, M. D.



"Look what I brought back from my vacation!"

ANNE was simply floored; Sylvia of all girls, getting a man like that after so many years. Sylvia, the office nuisance. Sylvia, the girl that men forgot just as quickly as they could.

"Isn't he nice?"

Anne had to admit that he was.

"My dear, it was simply whirlwind. We met ... we talked ... we fell in love! Didn't we, Dave?"

Dave grinned sheepishly, "Boy, am I lucky."

"We're going to be married next month," Sylvia rattled on, "and then honeymoon in Bermuda."

"How gorgeous!" said Anne.

Then while the somewhat abashed bridegroom-to-be sauntered out onto the lawn, Sylvia held Anne's ear. Dave was in business for himself ... doing awfully well, too ... they were going to build a home ... he had the nicest disposition ... and, my dear, half a dozen girls had made a play for him at the summer resort. Suddenly she stopped and patted Anne's hand—

"I guess I've got you to thank for this," she said, simply.

"Me? Why, Sylvia?"

"Don't you remember the spat we had? You lost your temper and told me about my breath.

Told me to get Listerine or get off the earth."

"But, Sylvia"

"No buts. Honestly, if you hadn't said what you did I'd probably still be a wall-flower instead of the luckiest girl in the world. That dig of yours changed my entire life."

HOW ABOUT YOU?

There are a million people that might well take a hint from Sylvia's case—people who are fastidious about everything but their breath and who continue to offend *without even knowing it*. Perhaps you are one of them.

No one is exempt from halitosis (bad breath). It may be present today and absent tomorrow, due to subtle chemical changes in the mouth.

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Radio broadcasting stations employ engineers, operators, station managers, and pay up to \$5,000 a year. Spare time Radio set servicing pays as much as \$300 to \$500 a year—full time jobs with Radio shops, manufacturers, dealers as much as \$30, \$50, \$75 a week. Many Radio Experts operate their own full time or part time Radio sales and service businesses. Radio manufacturers and jobbers employ testers, inspectors, foremen, engineers, servicemen, paying up to \$5,000 a year. Radio operators on ships get good pay, size the world besides. Automobiles, police, aviation, commercial Radio, loud speaker systems are newer fields offering good opportunities now and for the future. Television promises to open many good jobs soon. Men I have trained are holding good jobs in these branches of Radio. Read their statements. Mail the coupon.

**There's a Real Future in Radio
for Well Trained Men**

Radio already gives good jobs to more than 300,000 people. And in 1935, Radio enjoyed one of its most prosperous years. More than \$200,000,000 worth of sets, tubes, and parts were sold—an increase of more than 80% over 1935. Over a million Auto Radios were sold, a big increase over 1935. 24,000,000 homes now have one or more Radio sets, and more than 4,000,000 autos are Radio equipped. Every year millions of these sets go out of date and are replaced with newer models. More millions need servicing, new tubes, repairs, etc. A few hundred \$30, \$50, \$75 a week jobs have grown to thousands in 20 years. And Radio is still a new industry—growing fast!

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NAME

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AMAZING STORIES

Science Fiction

Vol. 11

OCTOBER, 1937

No. 5

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T. O'CONOR SLOANE, Ph.D., *Editor*
Editorial and General Offices: 461 Eighth Avenue, New York, N. Y.

Extravagant Fiction To-day Cold Fact To-morrow

The Polar Sea

By T. O'CONOR SLOANE, Ph.D.

WE are living on a spheroid; which like other globular bodies has neither top nor bottom. But our Australian friends often make the claim that they live "Down Under," as far at least as we are concerned, and sometimes the north and south poles are taken as the top and bottom of the world we live on. This is all figurative, but if one were asked which of the two poles is situated at the top of the earth, he would be apt as a matter of course without reflecting to say that the north pole was at the top of things and that the south pole was the base of the earth. This is a mere bit of imagination for there is no top or bottom in question.

For some reason or undiscovered chance the division of land on the globe puts most of the land in the northern hemisphere. If we look at the maps of the earth we will see that the South American and African con-

tinents decrease in width at their southern extremities, Cape Horn and the Cape of Good Hope, forming each a sort of terminal point to the southern end of their respective continents. The eastern and western hemispheres fill up the northern parts of the globe to a great extent, so that the water passages of Bering Strait and of the northern Atlantic are comparatively narrow, while below the two southern capes, south of Africa and of South America, the three hundred and sixty degrees of longitude could be traversed by a ship without land being seen. Australia and the Indian Archipelago and even the great Antarctic continent cannot balance the inequality of distribution of land on our globe.

North of the countries of both hemispheres there is an immense ice-covered expanse, the Polar Sea. It has never been explored; as far as

we know there is nothing there but sheets of ice. In the latter half of the last century a theory was enunciated to the effect that there was an open Polar Sea. This theory was upheld by the explorer, Isaac Israel Hayes. He was the author of several books on the subject of his explorations in the polar regions. He vigorously upheld the theory that there was clear water surrounding the north pole, and wrote on the subject in a decided way. Peary, years later, paid no attention to Hayes' theory, but accompanied by some Eskimos and a negro member of the expedition, no other member being allowed to go the entire distance, he reached the pole, and had ice more or less solid to travel over for the whole distance. His course demolished the theory of the open Polar Sea most effectively. And now the Russians are establishing a station there, on the line of airplane travel between the East and West. And this station is floating on the polar ice. It seems a strange place for a permanent settlement, if it can be so designated. With airplane service a trip to the north pole is nothing of an achievement. There were four planes in the recent Russian expedition. All have reached it in safety.

There have been so many efforts made to get to the north and south that any attempt made in the past is a story of true interest. Ships and their complement of men have spent many weary months there and many have perished in the futile attempts. Up to the time of the Russian attack on the problem, Peary is generally accepted as having reached the north pole. He started with a considerable party bringing stores and establishing depots of supplies along what was to be the line of retreat. At each place a portion of the party went back and

the remainder continued on their way establishing new depots, a detachment returning each time until Peary started off for the pole with a colored man of high quality and some Eskimos in his party. Why he took no white man with him is not known. There is always in the mind a suspicion that Peary wished to be the only or the first member of his race to achieve the discovery of the Ultima Thule—the top of the world.

We have spoken of the theory of the open Polar Sea. The Polar Sea has not yet been explored. Airplanes open up the fullest possibilities for the work of exploration, and if there were a number of airplanes in service there, the world would soon know about the icy area. Except for the great space between Europe and America it is pretty well surrounded by land, continents and islands. We think of it as a plane of ice of great thickness. But one man of Peary's party was drowned on his return trip; there are always open leads of water to be expected and to be feared. The Russians found two and a half miles of water under the surface of the ice. And this earth of ours in its rotation develops the exact amount of centrifugal force to hold this ice-covered sheet of water in the shape of a slightly flattened dome to carry out the ellipsoidal shape of the earth. It is interesting to look at a map of the land, water and ice within the polar circle. The striking thing about it is that so large a proportion of it is surrounded by land. Starting at the eastern coast of Greenland the largest opening to the rest of the seas of the earth extends eastward from that barren country to Sweden, with little Iceland doing its part to help close in the Arctic. Then following the circle all the way around the

most considerable openings are afforded by Bering Strait and Baffin Bay, and even the latter at its northern extremity diminishes to a relatively narrow passage.

To the east of Greenland and on a parallel of latitude south of its northern limit, there is a small island named Rudolph Island. It is on this little bit of land, rising up from the Arctic ice, that a Russian station is placed. The island is about seventy degrees east of Greenland. There is little doubt that the climate of the polar region is greatly modified by the mass of the Polar Sea, whether ice covered or whether the water is exposed over considerable areas.

As far as is known there is no land near the north pole. The distance from Rudolph Island to the pole is more than the distance traversed by Peary in his achievement. But on the island there is a regular little settlement of several buildings, and this represents for the explorers their Arctic home. The photograph of the pole taken in the 1926 Peary expedition shows practically nothing of any interest. An ice sheet is there with leads of open water ready to engulf explorers. But the airplane and wireless telegraphy have vastly simplified the work. One desire is to establish a weather station at or as near as possible to the north pole. The general object of the immediate present is to collect data.

Rudolph Island is on a line between Russia and the pole. If its locus is taken as between Nova Zembla and the pole it will be very nearly correct. It lies far within the Arctic Circle, yet is not as near to the pole as the northern line of Greenland and nearer than the Canadian Arctic west of Greenland. It is about seven hundred and fifty miles from the pole.

The effort is to establish a little station still nearer the pole for a party of four to take records of the state of things in the extreme Arctic. But if the party had to fly away from their hut on the floating ice, the northern shore of cold inhospitable Greenland would give them their best landfall.

If the frozen waters of the Polar Sea were only a stationary dome of solid ice it would be a far better state of things than the present. The great sheet of ice is subjected to endless disturbances from the wind. Great upheavals of the ice take place, the masses rising many feet into the air. The icy regions of the north do not give easy sailing for ships, and the ice of the Polar Sea gives anything but good landing for planes. For the airplane cares little for the troubles of air or ocean water, but what it needs is good landing and take-off and the polar ice gives little. It is quite within the possibilities that the work of the Russian explorers may lead to the discovery of other islands or even a single island better than Rudolph Island, one nearer the pole would add to the peace of mind of the party in the little eiderdown hut, which is one of the poorest heat conductors known, and therefore also cold-resistant, and conducting to lightness and portability. There is nothing in the way of a bedcover as warm and light as an eiderdown quilt. The importance of the hut being light cannot be too much emphasized. The ice, for all the arctic cold, is far from a fixed base, and in the case of a breakage and impending opening of crevasses or cracks, termed leads, it might be necessary to move the structure in a hurry to save it from total loss. Lightness might save it from destruction.

When Dr. Isaac Israel Hayes pounded the doctrine of the existence of the open Polar Sea, he wrote a book on the subject. The trouble with the matter was that no one at that period had ever penetrated to the area of the supposed open body of water. Nothing was known of the condition of the surface of the earth around and about the north pole, for the reason that no one had ever gone far enough north to see or inspect the area. Hayes who was a genuine explorer and who made several trips to the Arctic never got within sight of the region where he held that the open sea was to be found. His work was done in the "sixties" of the last century. All the while the north pole was there awaiting discovery by man.

Except for the great stretch of ocean, reaching from Europe to Greenland, the Arctic Sea is nearly hemmed in by land. Baffin Bay as it extends to the north leaves a comparatively narrow passage or strait communicating with the Polar Sea. Then keeping on to the west another narrow passage is reached leading to the Pacific Ocean. And these three are all the openings into the great oceans of the world. But the gap between Europe and Greenland takes away from it any isolation; it is part of the ocean system of the earth, an enormous gulf.

Explorers always had the greatest difficulty in getting near to or within sight of it. If the traveller knows how to take care of his party, the Arctic is not a bad place to abide in. There is a recent book on the subject entitled "The Friendly Arctic" claiming that it is not at all a bad place. We can perhaps incline to the belief that the author wanted a striking point of view which he could develop

in the text. In reading accounts of explorations in the Arctic, one is surprised when descriptions are met, telling of flowers and vegetation to be seen there in the summer. There is animal life of several kinds, musk oxen, bears, seals, walrus; all available for eating.

Some ten centuries ago the Icelanders sailed across the northern Atlantic and established a settlement on the southwestern point of Greenland. With deep fiords and indentations into the land the contour suggested Scandinavia. The settlers came from Iceland, which was anything but a cheerful name, so they very probably for that reason named their new country, Greenland, a more cheerful appellation. A definite attempt was made to start a sort of land speculation there, and the relics of the old days have been unearthed and preserved in Scandinavia. It is hundreds of miles from this southern area to the Polar Sea.

If the area surrounding the north pole were solidly frozen over so to present a dome of ice, it would be a simple thing with our modern appliances to go to the pole and establish a permanent station there. But the trouble is that the ice is in motion. A recent report tells of a drift of over six miles in a day. The ice sheet is subject to disturbance, throwing up great masses to a considerable height, and opening leads of water or of thin ice. One can only wish that there was an island nearer the pole than Rudolph Island, which is pretty near the edge of the great expanse. The northern shore of Greenland is nearer, Rudolph Island is twice as far as it is from the pole.

One saving clause is that the weather is for the most part endurable. Possibly the great area of water

and ice operates to produce some degree of evenness in the climate. But imagine the result of a great sheet of ice, perhaps a hundred feet thick and many square miles in extent, starting into motion, actuated by currents of water and high wind, driving square miles of it against some other area perhaps stationary, raising great masses of ice high up into the air. This action, imperfectly described, may be the cause of the irregular surface, alluded to by explorers as one of the difficulties in traversing the

four or five hundred miles of Polar Sea area, ice covered it may be, but so rough as to impede progress. Of this irregularity of surface, which has so often given endless trouble, and of water-filled gaps and cracks in the sheet of ice we can read enough to realize that the landing and starting of airplanes may be attended with much trouble, for an airplane needs smooth landing and a smooth runway to start off on. The leads of open water give a sort of vindication of the theory of the open Polar Sea.

Science Questionnaire

1. Is the North Pole to be regarded as the top of the earth? (See Page 7)
2. In which part of the earth, referring to two halves as determined by the equator, is there the most habitable land? (See Page 7)
3. What are the characteristics, as far as known, of the Polar Sea? (See Page 8)
4. How did Peary conduct his attack on the North Pole? (See Page 8)
5. What was the Hayes theory of the open Polar Sea? (See Page 8)
6. Is the Polar Sea an unbroken sheet of ice? (See Page 8)
7. How is the Polar Sea bounded? (See Page 9)
8. What continent is nearest to the North Pole? (See Page 9)
9. What disturbances is the ice of the Polar Sea subject to, and what dangers are incident to them? (See Page 9)
10. How does the Polar Sea represent an enormous gulf? (See Page 10)
11. What theory can be advanced for the name Greenland for so frigid a region? (See Page 10)
12. What rate of drift of a part of the polar ice has been recently determined? (See Page 10)
13. Is the weather on the Polar Sea endurable? (See Page 10)
14. Is the surface of the ice unbroken and smooth? (See Page 11)
15. What do the letters HE mean in navy parlance? (See Page 23)
16. What does an "Ash Can" mean in the same? (See Page 23)
17. What kind of whale has been called the "Tiger of the Sea"? (See Page 24)
18. What do the letters NCO mean in the navy? (See Page 27)
19. Has hydrogen the atomic weight of one, which was originally assigned to it? (See Page 80)
20. What is the atomic weight of helium compared to that of hydrogen? (See Page 80)
21. How far is the planet, Venus, from the sun, approximately? (See Page 82)
22. Is the planet Venus smaller than the earth and what is the difference in size? (See Page 87)
23. How long is the year on the planet Venus? (See Page 87)
24. What is the distance of the planet Venus from the earth at its nearest approach? (See Page 87)
25. What planet is nearest to the sun and what is the distance? (See Page 87)

"When Atlantis Was"

By H. F. ARNOLD

After a fine episode of the advanced tactics of the great navy of the United States, following the words of the story, we are taken to "Atlantis" and told of how it was populated in the ancient geological times.

TWO PART SERIAL—PART ONE

U. S. S. DESTROYER LEADER "FARRAGUT," officially No. 394, but affectionately known to the entire fleet as "the McGinty" for reasons which nobody ever bothered to explain, headed her squadron into the South Atlantic seas in battle formation at a speed of 25 knots. It was a clear cloudless day in early spring with just enough sea running to make her roll a little and to thump against her keel as she knifed through the crests.

Aboard the Farragut was her regular peace time complement of ninety officers and men; Lieutenant Commander Witherspoon commanding. Her fuel tanks, fortunately as it turned out, were at capacity, as she had just refuelled at a speed of 23 knots under war test conditions from the 10,000 ton cruiser, "Salt Lake City"; quite a feat if there happened to be much of a sea running. She had then some 400,000 gallons of "crude" aboard, enough to take her Diesels a third of the way around the world under normal speeds.

The "Farragut," or let us follow the example of the rest of the fleet and label her at once the "McGinty," was the latest product of the naval yards. She carried enough armament and ammunition to have destroyed all the navies in existence at the time of the civil war and could have done it without risk to herself. She could

reel off a speed of fifty knots and do it hour after hour in any reasonable sea. Her food lockers were full and her refrigerators would feed her ninety men in a pinch for three months.

In other words, to put it mildly, the "McGinty" was a ship, sleek, trim and dangerous, a "chooser of the slain" as the poet put it but a chooser capable of doing her own slaying as well.

Some such thoughts were in the mind of Commander Witherspoon and his executive officer, Lieutenant John Morgan, as, leaning against the bridge rail, they gave with the roll of the ship and waited for signals from their cruiser for the coming battle practice.

"She's a ship, Johnny," said the Commander, "and that shake down cruise was just what she needed. I'd back the old lady against Heaven or Hell if she's given half a chance."

"So would I," grunted Morgan, reaching for a stanchion as she rolled. "I wonder what she'd do if they'd let us open her up?"

"Blow us all to hell probably," laughed Witherspoon, "especially if they let you set the burners."

"You'd drive her, wouldn't you, Johnny?"

"I'd like to see," said his second, wistfully. "I'll bet she'd do seventy knots before she blew."



The reptile stood at least forty feet tall and as he halted for a second on the edge of the clearing before catching sight of them, Johnny saw that he was kangaroo-like with proportionally small forelegs and a huge long tail.

"It's 7:40," snapped the Commander, suddenly, "notify engine room to be ready with smoke screen and prepare to step up to thirty-five knots."

"Very good, sir." Morgan rang the engine room annunciator and repeated the warning while the operations officer, Lieutenant Hugh Malmson, passed on the preparatory command to the eleven squadron members in their wake.

In those tense minutes while waiting Johnny Morgan characteristically was wishing that he had command of the "McGinty" and an opportunity to open her up under those war-time conditions, for which they were always preparing but which never came. There had been six Morgans in the navy and all of them at one time or another had been court-martialed for recklessness, but all of them had won the navy cross also and three of them, the Congressional Medal of Honor. Their race bred men like that, sailors as trim and dangerous as the ships they commanded.

But their cruiser leader, the "Salt Lake," was signaling "Prepare to lay smoke screen." Being as the fleet was in battle formation and "the McGinty" led the left hand advance destroyer squadron, at the command "lay smoke screen" she would immediately put on full speed and dash ahead of the slower line of cruisers and battle wagons. The leading or "Point" squadron of destroyers would immediately execute a ninety degree turn and drive across the "McGinty's" bows as she circled. The right hand squadron which would also put on full speed, or rather as this was a peace time maneuver a speed of about forty knots, would do the full 180 degree circle ahead of the battle line and would also pass outside of the line led by

the "McGinty." In some three minutes after the start of the execution of the order the entire front of the fleet would be swathed in impenetrable smoke and, while the "McGinty" would be racing back in the opposite direction from which she started and on the other side of the battle line, the two squadrons would also be dashing down the row of battle wagons in the opposite direction from which *they* had started. Each squadron of destroyers then after passing ahead of the point of the fleet would, at a certain point, pass through the screen laid by their companion squadrons and lay a fresh screen on the outside thus eventually swathing the fleet in two or, in some cases, three layers of oily, greasy crude oil smoke impenetrability.

THESE maneuvers are, in the light of what later took place, of the greatest importance, the point which chiefly should be borne in mind being that at a certain instant in the maneuver, the "McGinty" would lead eleven other destroyers in line through the pall of battle smoke which would have a thickness at that moment of some 300 yards. As the "McGinty" would be making a speed of some 50 miles an hour, she would be in the fog about a minute at the most.

The day was clear and cool, visibility excellent, temperature 40 degrees, the date, May 1, 1934, time 7:43 a.m.

"Execute smoke screen, 7:45," rapped out the signalman on the bridge of the "McGinty" as he transcribed. Behind him the yeoman made the four "blue" copies of the order as a matter of navy record.

"Here we go," laughed Johnny Morgan, rather unorthodoxly in the ear of his captain and hung on to

the bridge stanchion when the "McGinty" bucked as the first surge of her tremendous power dug in at the waters of the South Atlantic.

"Change course 40 degrees," ordered the phlegmatic Witherspoon into the ear of the helmsman beside him.

"Forty degrees, it is, sir," repeated the quartermaster, spinning the wheel.

"Behind the "McGinty" her eleven sisters raced in her wake timing themselves in split seconds, turning as she turned so that no observer watching their wakes could have said a minute later, "there went the McGinty" and, "there went the twelfth ship in line."

Three minutes later the head of the battle line of capital ships was bathed in obscurity and the "McGinty" still at forty knots bore down on the wall of smoke laid by the right-hand squadron.

"Just like going into a tunnel in broad daylight," thought Johnny Morgan. "Hope we don't hit another subway train or run into a traffic block. Good old BRT system. Times Square in three weeks, boys."

"Here we go," said Witherspoon and prepared to hold on against the shock as they cut across the wash of the squadron that had laid the screen. It always confused him for a second to go into that pitch blankness from bright daylight and he instinctively shut his eyes as they hit the wall of darkness. The shock seemed to be delayed for a measurable instant. "Could the "McGinty" be off her course? Impossible! No, there it was, the second shock. Heavier than usual."

"But what was this?" There followed an instant of terrible blankness and then another shock. "The

other side of the wake? But why was it so terribly cold?"

And the next Commander Witherspoon realized was that he was swimming in mid ocean in bright daylight and that he was completely and entirely nude.

He dodged instinctively as the prow of a destroyer cut by his head with a roar and held his breath as her wake rolled him over and over and threw him a hundred feet. He was a strong man and he withstood the shock without losing consciousness and got his head clear in time to catch the thunder of the engines as the third ship in line roared by in a cloud of foamy smother that kept him blind.

It reminded him somehow of Ben Hur and the Roman Tribune swimming in the gulf of Euripus in the midst of the dashing galleys of Rome and of the pirates.

"Four, five, six, seven, eight, nine, ten, eleven. That would be the last." His hand hit something cold and clammy. Instinctively his arms closed around it and he realized it was the body of a man nude like himself. He held on and waited for a smother of foam to clear his eyes. When the welter had passed he discovered that the body he was supporting was, oh ghastly, without a head!

As aforesaid, Commander Witherspoon was a strong man, but he relaxed his grip on the corpse with a shudder and found himself trembling all over. He retched horribly into the trough of the next sea and swallowed a quart of sea water before he could stop it. Then he turned over on his back and floated waiting to be picked up. He hoped that body hadn't been Johnny Morgan; he hoped it hadn't been anybody he knew. But, of course, it must have been. Some member of his crew decapitated by

one of those racing sets of twin screws that had swirled so near his own head. But why were they both nude?

Commander Witherspoon raised himself as far out of the sea as was possible and tried to catch a glimpse of his squadron but he was so low in the water that there was no visibility. Never mind. It was a clear day and calm, either he would be picked up or he wouldn't. There was nothing he could do about it. They were on the edge of the Gulf stream and the water, thank God, was warm. He could keep afloat for hours.

After a long time he saw a sharp prow cutting toward him and heard a hail. He raised an arm in acknowledgement and waited. He was a little hazy by then and thought himself again in the sea battle in the gulf of Euripus and that he was Tribune, Quintus Arrius.

"Can't surrender," he murmured. "Look for me? See if the galley has a helmet on her prow? If not, she's an enemy."

And then a strong arm caught him.

THE "McKee," Lieutenant Carl Donaldson commanding, had been the second ship in the line following the "McGinty" into the screen. Donaldson, on his bridge, felt the shock of the twin wakes of the destroyers whose paths they were cutting, like Witherspoon had done before him, and waited, hand shading his eyes, for the haze to thin ahead of them. It is always a ticklish moment following a destroyer through a screen as any error in course or speed is dangerous.

"Good, here we go," thought Donaldson as the haze thinned. "Now, boys, on our way."

He looked instinctively for the

"McGinty" to check his course and then gasped in awed amazement. Ahead of him was a deserted Atlantic sea, calm and with scarcely a swell. There wasn't even a wake visible.

The "McGinty," eight million dollars of government property and 90 officers and men had utterly disappeared! Donaldson blinked and passed his hand across his eyes in complete bewilderment. He even turned his head to look back at the smoke as if the impossible could happen and the ship yet emerge from the screen. Behind him, the bow of the "Daugherty" was just heaving into view, on the dot, according to schedule.

But of the "McGinty" there was no trace.

"Stop circling movement," he ordered tensely, "new course, 180 degrees left."

Back with the main fleet the row of battlewagons plowed steadily ahead into the pall of smoke and the broad wastes of the Atlantic. Leading the van were the cruisers deploying in line formation and foremost of all was the 10,000 ton cruiser, "Salt Lake City," temporarily acting as point for the fleet until the destroyers should complete their circling movement. It was to Rear Admiral Harmes, on the "Salt Lake," in the command of destroyer forces, that his communications officer reported four minutes later with the strange and disturbing message.

"Destroyer 'Farragut' disappeared with all hands while in smoke screen, Sector 254. Am halting circling movement and returning to spot last seen. McKee, Donaldson commanding."

The Rear Admiral noted that the message had arrived by radio and when he looked up, it was with an apparently idle query.

"Thought the radio was ordered silent during maneuvers?" he queried to his executive officer who was standing white and startled beside him.

"That's true, sir," said that officer, "but I suppose Donaldson thought that—under the circumstances."

"Precisely," said Harmes. "Any word from the fleet? The 'Farragut' may have gone out of control and be running wild through the screen."

"No word, yet, sir," said the executive. "But in that case, wouldn't she have been sighted or wouldn't she have reported by radio?"

"Check this message by 'D' beam," ordered his superior. "D" beam is a jealously guarded means of communication, never used by the fleet in peace time, except in a vital emergency. Sufficient to say it isn't radio or blinker or any other matter of common knowledge. The very fact that Harmes commanded its use showed his appreciation of the urgency as he chanced his commission in ordering the beam turned on.

"Very good," said the executive officer again. "Here's another from operations."

He opened the blue message blank and read its typewritten report aloud: "Engines on the 'Farragut' ceased vibrations instantly between 7:49 and 7:50 according to supersonic sound operator. No explosion or depth bomb reports were heard."

"He didn't blow up then," remarked Harmes unnecessarily, "and he isn't running wild. I wonder where in hell he is. You don't suppose they've all gone crazy, do you?"

"It doesn't seem likely, sir. But perhaps we have," the executive answered. "Fleet orders, sir."

He ripped open the envelope from the fleet commander and spread the message before the Rear Admiral.

"'D' beam disconnect immediately. No answer from 'Farragut.' All vessels execute 180 degrees left, 7:58 except Destroyer Squadron Six which will investigate. Emergency speed all vessels. All destroyer squadrons except otherwise ordered continue smoke screen at speed fifty knots. Message ends. Halsey, Admiral Commanding."

"There goes a career," thought the executive looking curiously at Harmes. "He never should have ordered that beam used. Direct violation."

CONSIDERING that his retirement was at stake the Rear Admiral seemed curiously unperturbed.

"'Fleet' seems to have acted fast, doesn't he? Order 'D' beam disconnected. Hmm. Emergency speed all ships. That'll shake up the battle-wagons. Fifty knots on destroyers. Hope they don't blow any boilers. I wonder what did happen to the 'Farragut'?"

"Donaldson will find out if anybody can, sir," answered the executive, with a confidence he did not feel. "There we go, sir. We're starting the turn. What speed, sir?"

Harmes looked at him curiously. "You're looking flustered, McDonald," he said. "The 'Salt Lake' can't run away from the fleet. You know what fleet emergency speed is. Keep your head, man."

The executive took the reprimand as deserved.

"Here's a report from the 'Lexington,' sir," he said. "Her planes have landed and just before the 'D' beam was shut off she reported that the 'Farragut' never emerged from the smoke screen. She's sending up sea planes to help Squadron Six. And

here's a supplementary order from Fleet detaching Tenth Submarine Squadron to cooperate as well."

The Admiral looked at his watch. It was precisely eight o'clock or eight hours in the fleet 24 hour schedule. The "Salt Lake City" was already moving at fleet emergency speed of 26 knots. He knew that somewhere in the smoke screen through which they were now moving some 90 odd vessels had turned at the same moment and were proceeding at terrific speed directly away from the spot where the "Farragut" had disappeared, each vessel in the precise spot where she should be and each invisible to an enemy or any other ship of the Fleet as well in all likelihood. Running away. The United States battle fleet was running away from something unseen and unheard.

AND it had all happened in precisely fifteen minutes from the time the order had been given to lay a practice smoke screen in peace time; eleven minutes from that split second the "McGinty" had entered the smoke screen, a hundred and forty-five thousand men were leaving her to her fate at full speed. No, that wasn't precisely fair. Over the spot where the "McGinty" had vanished a dozen huge sea planes were already coursing, dipping low to the surface of the ocean through the curling slowly dissipating smoke. Deep under the surface a dozen submarines were sliding through the ever-dark depths their ears listening for something they could understand. And on the surface the eleven destroyers of Squadron Six were covering the sea with a minute scrutiny that no drifting life preserver, wreckage or body could possibly escape. Everything that could be done was being done.

Myer Harmes, Rear Admiral, U.S.N., put his chin in his hand and, lost in thought, considered the picture of all this.

"Any further orders, sir?" prompted his executive.

"What?" said the Admiral. "Orders? Why no, McDonald. I believe that everything is being done that can be done. I believe you might order us breakfast, here, of course."

"Very good." The executive buzzed his speaking tube and gave the order. Somehow he didn't believe he would have much appetite that morning. While they waited he came back to the table.

"What do you think, sir?" he queried in spite of himself. "What in hell do you suppose has happened to the 'Farragut'? What enemy could possibly have reached her with all this fleet in the area without anybody knowing? And if no enemy, what accident could have happened?"

The Admiral didn't reply and the executive went on with his thoughts aloud:

"There was the case of the 'Cyclops.' She disappeared at sea with all hands during the war and nobody ever knew what happened. But she was alone. A modern collier and two hundred men gone into the sea. And nobody ever knew. Only God."

"Only God," said the Admiral, "but some of us suspected."

"After the war, the German Admiralty denied all knowledge and so did the German War Office."

"Perhaps," said the Admiral softly, "there weren't any of them who knew enough to suspect."

"What do you mean, sir?"

"McDonald," said the Admiral, "it's a strange place, the sea. I've followed it for nearly forty years and

some strange things happen that none of us know enough to explain. And I don't mean that they are, necessarily, supernatural happenings, either. We just don't know enough. I doubt very much, unless we're heading for a lot of immediate trouble and the little fellows are trying out some unknown weapon, if we ever hear from the 'McGinty' or her crew again. But here's breakfast."

It was while the two officers were eating that the "McKee" and Donaldson located the swimming Commander Witherspoon and hoisted him aboard in a state of collapse. She found other men also, or parts of them, and the radio ban being lifted, hastened to report the facts to the "Salt Lake City."

"Hmm," mused the Admiral as he looked over the report. "Witherspoon living but unconscious and bodies of four men, the two radio operators, an oiler and a deck seaman. All bodies completely nude even to identification disks. Wonder how they knew who they were then? But Donaldson is definite. Some of the crew knew 'em probably. No wreckage at all and no sign of the 'Farragut.' Strange, very strange, that the bodies are those of men from all parts of the ship."

"Orders, sir?"

"Direct the 'McKee' to leave the rest of her squadron to continue the search. I want the ocean combed for every scrap of wreckage. Every scrap, mind. The 'McKee' is to bring the bodies and Witherspoon and report directly to Fleet aboard the 'Pennsylvania.' Full emergency speed."

A FEW hours later the "McKee" pulled up alongside the flagship and Witherspoon was transferred on

a stretcher. Immediately as though in the opinion of Fleet, all immediate danger had passed, the order was given to moderate speed and the squadrons proceeded toward New York harbor. There, only a few weeks later the entire fleet was paraded in grand review before a President of the United States. But in one destroyer squadron there were only eleven ships and if some of the keen eyed newspapermen who noticed the omission were inclined to ask questions, they found themselves facing the navy barrier of silence. Among the thousands who knew that the "McGinty" had disappeared even naval discipline was unable to prevent rumors and the news crept around the world.

In far corners of the earth inconspicuous men of the service of naval intelligence asked quiet questions and yellow men asked questions of white men in other places and suspicion was even directed at a black man in an almost inaccessible spot. As a result dozens of men died, uselessly, and their absence was never mourned or even noticed. But no one outside ever learned more than was known after that conference which began when the surgeon on the "Pennsylvania" assisted Commander Witherspoon into the headquarters of the Fleet.

The Admiral commanding was kindly but brusque.

"Feel able to talk, Commander?" he queried and when Witherspoon nodded, "Then tell us."

When the brief recital was ended the staff sat a moment in silence.

"We've very little to go on," said the Admiral finally, "the instantaneous nature of the affair, the absence of wreckage and the fact that those whose bodies were seen again

were robbed even of identification disks. There is also the fact that they apparently came from all parts of the ship. Queer. Since there was no wake seen the ship seemingly was stopped dead in its tracks. It was neither blown up or sucked down. We've dragged the area fairly thoroughly. It would lead us to the assumption that it was dissolved. Accidental? Impossible. Some new weapon of an enemy? It seems the only likely answer but what—I hardly need to ask, who? And why should they stop with one destroyer?"

"Perhaps," suggested an officer, "it was just a tryout."

"That is ridiculous," said the Admiral. "Any nation capable of perfecting such a weapon would have ample means of trying it out and would keep it secret until they were ready to use it."

There was another long silence.

"There is a possibility," suggested the executive officer of the "Salt Lake" who had been mulling over the possibility in his mind, "that they *were* using it for a purpose. To get us to reveal just what we did reveal."

"You mean?"

"The 'D' beam," said McDonald, looking vindictively at Harmes.

"That possibility can only be determined by the future," decided the Admiral. "Gentlemen, we can only listen and wait. In the meantime, gentlemen, the 'D' beam will never be used again until the actual outbreak of hostilities except on definite orders from Fleet."

The final verdict of the court was: "During maneuvers in the Southern Atlantic at 7:45 May 4, 1934, the U.S.S. Farragut was lost at sea with all hands, excepting Lieutenant Commander Thomas Witherspoon. Rea-

sons for the loss of this ship are unknown."

But this verdict was never made public and relatives of the various members of the crew were merely informed that death had occurred as the result of an "unpreventable accident at sea." Rear Admiral Harmes was quietly retired. Witherspoon was acquitted of all blame but was not returned to sea duty.

And the inconspicuous men in the service of the United States continued to listen—and die—but the International Situation for the time, continued unchanged.

And through it all the "McGinty" continued to sail the seven seas or at least a considerable part of them and her crew met with the strangest adventures that ever met a crew, and at the last one man guessed a partial explanation of the mystery—but that man never talked, and fifty thousand years later a man in a metal box descended five miles to the ocean bed and came closer to the whole truth than anybody—but that man never knew. And, although it seems contradictory, he made his descent in the fall of 1995.

BUT to come back to Lieutenant Johnny Morgan and that moment at 7:48 a. m. on the morning of May 4, 1934, when the "McGinty" entered the smoke screen. Johnny as aforesaid was clinging to a stanchion on the bridge waiting for the twin shocks that were to indicate that they had passed through the destroyer wakes. As did Witherspoon he felt the first shock that jolted as though the "McGinty" had hit a stone wall and stopped dead for a second before forging ahead.

"Derelict," thought Johnny swiftly, "by gad, we've hit something!"

It was only then he noticed that they had run out of the screen and that Witherspoon had disappeared from the bridge. "That's odd," Johnny thought. "He sure did a quick slope."

Well that left him in temporary command. He turned swiftly to check the course and run parallel to the screen. The cloud of smoke through which they had passed had vanished.

"Wow," he said aloud, "somebody must have shut off the stacks for a minute."

And then it all drove home to him at once. The screen was gone, the fleet was gone, and—he turned to make one more check—there was no squadron of destroyers following in his wake. He reached for the engine room tube. "Shut down to hold speed on both engines, Mac," he half whispered. "The world has gone to hell."

As he spoke he turned to survey the deck of the destroyer. Except for the absence of Witherspoon it looked normal enough. Hugh Malmson, the operations officer, was walking down the bridge toward him, a good jump away.

"Something's the matter, Johnny," he said puzzledly. "I can't get any answer from radio. Where's the old man?"

"Never mind the Captain," said Johnny, "where's the fleet?"

Uncomprehending Malmson swung around to survey the horizon. He was one of those quiet, studious officers who seemed created to furnish the answers while the rest of the world acts on them. He looked back at their wake where the remainder of the squadron should have been, cocked an eye forward toward where the main line of battlewagons should have been rolling up, looked up at the sun and blinked his eyes and

looked again in puzzlement. Finally he walked over to the side of the bridge and cocked his eye at the water which rolled by them.

"Hmm," he said, "it doesn't seem likely, does it?"

"Boy," said Johnny, "you sure are given to understatement. It doesn't."

But Malmson was not waiting for a reply. In fact he wasn't waiting for anything. Still concerned with his problem, he had dropped down the companionway, only to appear on deck, a minute later with an ocean thermometer which he dropped over the side. Holding it carefully by the cord, he looked back at Johnny.

"You might as well stop both engines until I can get a reading," he said with perfect casualness.

"Listen, my lad, these are battle maneuvers," Johnny megaphoned, "we can't wait for—" And then he stopped his own voice. Battle maneuvers in an empty ocean were an obvious impossibility.

"Shut 'em down, Mac," he ordered into the tube, "and come topside until we can figure what this is all about. And if you see the Cap'n on the way, you might bring him along."

By the time Chief Engineer Officer, Lieutenant McSaunders, reached the bridge, Malmson had pulled up the thermometer and was scrutinizing it carefully. By that time the "McGinty" had virtually lost headway and begun to roll gently in the tranquil sea.

"I can't find Witherspoon," said McSaunders. "I'm sorry but he isn't aboard."

"Isn't aboard?" snorted Johnny Morgan. "You fellows are certainly taking this thing damned casually. We lose eleven destroyers, a smoke screen and a battle fleet—and now you tell me with complete noncha-

lance that we've lost a captain."

"Well," began McSaunders, in self-defense, "anyway I never did like him much, the 'stuck-up'—"

"Can it, Mac," — Malmson was returning to the bridge. "You might as well have the rest of it, Johnny." He turned to the signalman, the only member of the crew on the bridge, and then remembered to look back at Johnny Morgan for a mute permission to go ahead. "Galloway, report aft to the CPO and tell him to muster the crew, complete, on the forecastle. You can shut off all engines and leave 'em. We won't even need steerageway."

"That goes for you too, Hannan," said Johnny to the quartermaster at the wheel, catching the idea that Malmson wished the bridge deserted for some reason.

"You might as well have it all at once, Johnny," Malmson went on as soon as they were alone. "We've two radio operators missing — and the Gulf stream."

"The Gulf stream?"

Malmson nodded. "I thought when I looked over the side that it wasn't the right color and then I tested with a thermometer. The water is too hot and there's no drift."

"But," protested Johnny, "the Gulf stream is naturally hotter than the rest of the ocean. It's a warm current."

Mac was looking over the side.

"Yes, you dope. I get it. There isn't any current at all and besides even the air is getting hotter than 'Billy be damned.' It's only 8 a.m. but it might as well be noon."

"It's over 90 degrees," said Malmson. "Did you ever hear of sea water in this latitude or any other reaching 90 degrees centigrade?"

"No," Johnny admitted, "I never

did. Nor nobody else ever did either. Let's muster the crew and set 'em to searching the ship for Witherspoon and the others."

BY this time the ship's company had assembled on the fore deck and Johnny stepped forward to address them briefly. While discipline is not more slack on a destroyer than on the cruisers and battlewagons, since officers and men inevitably come into closer contact, it is conducted somewhat differently.

"Cap'n's disappeared." Johnny said briefly, "Anybody else missing?"

A quick check showed the absence of the deck hand, the oiler and the two radio men whose bodies were shortly later to be picked up by the "McKee."

"Okay," said Johnny, when the check was completed, "scatter and search the ship for 'em. Don't miss a spot. Uniform for the search, and the day, considerin' the weather will be skivy shirts and shorts. Step on it and muster back here in twenty minutes."

His orders given he returned to the bridge and his two companions. Leaning over the rail they had heard the result of the check as quickly as he.

"Well," he said, "have you figured what it's all about?"

"Hugh's going to shoot the sun," Mac announced, "it's my suggestion. It grew out of the too much heat idea."

Malmson stepped out on the bridge with his sextant and Johnny stepped forward to hold the stop watch for him. When he'd finished they worked out the ship's position together. Checked it and rechecked it. Then they looked at each other.

"It's all right," said Johnny, "except we can't be there."

"Why not?" demanded the Chief Engineer. "We are."

"Puts us right in the middle of Cuba," Malmson explained.

"Do it again," Mac suggested and to satisfy him Johnny took another sight and they worked out the figures again.

"One of three factors is wrong," said the engineer looking over their shoulders, "you guys, the sun, or the Nautical Almanac."

"Throwing out the last two, what does that get you?" Johnny demanded.

The crew had been re-mustering and one of the seamen, although no watch had been ordered, happened to look over the rail.

"Submarine dead ahead!" he bawled and Johnny jumped for the bridge.

"All crews to stations," he bel-lowed. "Speed on both engines, Mac. Jump to it!" As the crews vanished he leaned over and megaphoned to the crews around the five inch guns. "Ready with shrapnel or HE* as ordered, was ammunition."

Malmson was already whistling down the annunciator for war-head torpedoes in all four forward tubes as Johnny picked up his glasses and focussed them. He took a long look and then another, before he dropped the glasses and laughed.

"Submarine nothing. It's a whale and a big baby, too."

"Whales in this latitude? I don't believe it. Let me look?"

"Yeah," said Johnny, handing over the binoculars, "right in the middle of Florida. I don't either."

In his turn, Malmson peered at the mammal which, when sighted, had been sounding lazily a mile to the northward.

"Better get ready with the five inch with HE, Johnny," said Malmson, suddenly. "Whale or no whale, he's going to attack, and quick."

It was true. Even as he spoke the animal swung and headed full speed for the "McGinty." From a dead stop he jumped into high speed with a rapidity that McSaunders, if he could have seen it, would certainly have envied.

"Boy, what engines he has," Johnny muttered enviously. "He must be making sixty miles an hour and I'll bet he weighs darn near as much as we do."

"He is and does," said Malmson dryly, "but I wouldn't wait too long, Johnny, I think I know that fellow and if I do, he'll attack until we rip him apart."

"Ready with the starboard five inch HE, range 1500. Independent fire when ready," called Johnny.

The five inch with its twenty shot per minute capacity boomed sharply as they started to bracket. The first shot was under the monster and he was coming in so fast the gunner didn't even try to elevate but kept his range and started to pump HE.

"Golly," Johnny said, as the five inch shell cracked the water apparently directly under the whale and seemingly failed to bother him. "He certainly can take it, can't he? Ready with an ash can* there on the stern! Set it for thirty feet!"

"That's cutting it short," said Malmson, "but you'll need it. That baby can turn in his own length."

"So can we," said Johnny, grimly.

BY this time Mac was ready with the engines and the "McGinty" was under way.

"Ready for emergency speed?"

* High Explosive.

* A depth bomb.

Johnny queried down the announciator.

"All you want," was the prompt reply. "What's all the shootin' fer?"

"Whale," Johnny replied briefly and looked up just as a cheer came from the gun crew. A five inch shell had landed fair and square on the streamlined head and virtually blown away the first thirty feet of body.

"Okay," Johnny megaphoned to the gun crew, "he's out of control. Cease firing."

It was true. The monster was yawing to and fro erratically across the Atlantic waters. Even so he had enough momentum left to coast to a stop a few hundred yards from the "McGinty" before he turned belly up.

"Leave a crew at the burners and come topside," Johnny called to the engine room, and a few seconds later the three officers met at the gangway where a boat's crew was mustering for a possible closer inspection.

"Know what it is, Johnny?" asked Malmson.

"Whale, isn't it?"

"Of a sort. Grampus. Killer whale. The fiercest thing that floats. He's been called the 'tiger of the sea' and he's plenty tough."

"We've got a submarine named that," said McSaunders, "and its crew is plenty tough, too. Sure you ain't shot our sub, Johnny?"

"Listen, you two," said Johnny. "There's a time for everything including Mac's wisecracks. But it isn't now. Let's get serious. What's unreal about this beast, Hugh?"

"Its size," exclaimed Malmson. "They've never been known to attain a size much bigger than twenty feet. One of these babies would attack a whole school of whales, follow 'em for weeks and kill them one by

one. This fellow is well over two hundred feet. He's too big. Way too big."

"He must eat ocean liners," suggested Mac, and then apologized. "I'm sorry, Johnny, I won't do it again."

"All okay, Hugh," Johnny said, brushing a fly off his nose. "What, in your opinion does it all add up to? What does it mean?"

"Wait a minute," said Malmson, making a dive for the fly. After a chase down the deck he killed it without crushing it too badly and brought it back in the palm of his hand. He looked at it carefully.

"Unchanged. Well, that's something, anyhow. I was beginning to wonder. Of course, we may have brought it with us."

"What's a fly got to do with it," said McSaunders?

"It proves something I was beginning to wonder about. Insect life once it develops is virtually changeless. There have been house flies just like this fellow found in bits of amber. It proves we're still on earth, anyhow."

"Well," said McSaunders, "that's something. Did you have any doubt of it?"

"Some," said Malmson. "There's a lot of things wrong, you know. Sun too hot, position wrong, fleet disappeared, screen gone, the size of that fellow there. There's only one conclusion I can figure out."

"What's that?"

"We've been moved! Some force or other has snatched us up and moved us, 'McGinty' and all. But where—well that's another story. There's only several guesses I can make. We've either been moved to some spot on earth where conditions are different than anything anybody ever encountered before; we've been taken from

the earth to somewhere else; or we've been moved in time. And by golly, I'll swear the last is the answer."

"Aw," McSaunders muttered, "you're nuts."

"Perhaps I am. There's one factor that makes that a puzzle, too."

"What?" Johnny asked.

"Why the force should take 85 of us and leave five behind. Come here a minute."

He led them up on the bridge. Flung down carelessly in one corner was an officer's uniform.

"Witherspoon's naturally," said Hugh. "Look here. The force that moved us took every stitch of duds he had on him, every bit of metal, his identification disk, even the gold fillings out of his teeth."

"If he's alive anywhere I'll bet that will annoy him," said McSaunders.

"If we look," Malmson announced, "I'm willing to bet that the clothing of the other four will be found in the spots where they were last standing. For some reason I can't figure, Witherspoon and the others were left in our space. But their clothes were not taken along."

"Maybe we'll figure out an answer someday," Johnny decided. "But meanwhile the important job is to find out where we are. This leaves me in command of course, and the responsibility is mine. How are we going to find out where we are?"

"If what you fellows have said is true and judging by the facts, I know where we are," said McSaunders.

"Where?"

"Just about a mile and a half from where we left the smoke screen allowing for drift and our little affair with the gentleman over there."

"But our position figures show—that is if we are correct that—"

"Oh," said Mac, "your figures are

correct enough. Hugh, if we were moved somewhere in time as you have suggested, your nautical almanac wouldn't be worth a damn, would it?"

"Of course not. I believe you've got it, Mac. We've moved in time."

"Then the next thing to figure is—have we gone forward or back?"

"That isn't so easy. Off hand, from the size of the grampus, and the heat, I'd say back. But the earth has had hot and then cold periods several times, and might easily have them again. There's a way to find out, though. I'll give you an answer tonight. There's one thing certain. We've made quite a jump."

"How far?"

"Anywhere from 50,000 years up. Earth changes take time."

"How are you going to tell which way?" McSaunders was curious.

Johnny had guessed the answer. "It's simple. By the stars, of course. There's the astronomical books in the library that we used at the Academy. They give star charts past and future. All we have to do is compare them with the stars as they are tonight."

"For that matter," said Malmson, "there's an encyclopedia in the library, too. I reckon I could make my own charts if I had to."

"We'll go on that basis then," Johnny decided. "As soon as it gets dark we'll know which way we've gone. Now let's be practical and get together with the crew there. They're going nuts with curiosity." He leaned over the bridge rail and called to Jorgensen, his CPO.

"Forget about that animal for awhile, Jorgensen, and muster all the crew again. I'll talk to them in five minutes." He turned to his officers. "Just for moral effect, fellows, get into whites and freshen up."

AT the end of five minutes the men of the "McGinty" with the exception of a skeleton engine room force, McSaunders didn't intend to be caught napping twice, were mustered aft and three officers, spick and span, stepped out in front.

"At ease, men," Johnny began, "this is going to be quite a talk and you might as well relax and be comfortable. Sit down, if you like, anywhere, just so you can hear me. You can smoke."

He relaxed himself against the rail and waited.

"Men, I'm not going to make any speeches. You're the picked crew—thank God—of the 'McGinty' and the best damned destroyer outfit in the fleet. And it's a good thing you are, for we're up against the strangest problem that ever hit a Navy crew.

"You've all noticed a lot of queer happenings this morning. We've lost the screen, our squadron and the battle fleet. The Gulf stream has disappeared and we've had to kill a whale that was bigger than anybody ever saw before. Besides it is too hot for this latitude. We've had four men and Commander Witherspoon disappear leaving every stitch of their clothing behind them."

Johnny grinned. "All that, as some of you wise guys would remark, 'ain't natural'."

The crew laughed and relaxed.

"We've been trying to figure out what's happened and you're entitled to our guess. Men, the ship has been moved by some force we don't know anything about. We've been moved not in space, but in time. We're either living far in the future or far in the past—we'll tell you which tonight. And all the rest of our outfit have been left behind."

They took it very well.

"Any chance of getting back, sir?" asked Jorgensen.

"I don't know. None of us can guess. As long as we are alive we will try. Every man of us."

"Any idea at all what happened, sir? Was it some enemy fleet that did it?"

"Off hand I would say, no. Perhaps Lieutenant Malmson has a theory."

Malmson stepped forward.

"It's only a guess at best. There's a little to go on. Lots of articles and even men have disappeared in the past without leaving a trace, just as we did. You'll all remember the 'Cyclops'"—they nodded—"You've most of you heard of the theory behind the fourth dimension as to what it is. Briefly the idea is that of another plane surface capable of rotating at right angles to all of the three dimensions we know, those of length, breadth and thickness. I'm not sure I understand the math. behind it myself, but there are theories that there are other dimensions in addition to the fourth, perhaps revolving planes at right angles to the fourth. The theory is that one of these dimensions might be that of time." He paused.

"Go on, Lieutenant," approved Johnny. "This is all new to me, too."

"Very good. The theory concludes that there is a possibility that the time dimension might brush against our three dimensions much as a buzz saw hits a piece of wood and if we happened to be at the point of contact at the precise instant it might pick us up and give us a jog in time. Just as a piece of sawdust might be moved by the revolving saw a fraction of an inch from the top of the board toward the bottom."

"Sounds simple," said McSaunders. "All we have to do to get back is to

reverse the buzz saw. Didja ever try it?"

The crew laughed and the tension was easier.

"Any chance of us meeting up with the 'Cyclops', sir?" queried Held, the Chief Gunner's Mate.

"We don't know, of course. There's damned little we do know yet. We didn't ask Providence to give us this 'time,' but they've certainly done it. We'll have to find out what we can about this 'time' as we go along. I want everyone of you to keep his eyes open for anything unusual and report it instantly. We'll keep you posted as to our guesses. Is there anything else?"

"The 'McGinty,' sir. What are we going to do with her and where are we going to go?" Held asked.

"That's easy. We were headed for New York and we'll go where New York was or will be. Maybe we'll meet up with some of your many descendents, Held?"

The crew chuckled again, for Held's amorous proclivities while in port were every day jests. The gunner grinned sheepishly.

"That's it then. Oh, there's one thing more. I don't want one article expended unnecessarily. I'd advise you men to go slow on smokes for nobody knows where we'll get any more. And cooks, after today's dinner—and make that a good one—we'll have to reduce to emergency rations. We're going to stay in this neighborhood for a day or two until we see if anything more is apt to happen, so a fishing party will take off in half an hour. Lieutenant Malmson, is that baby submarine of yours good to eat?"

The crew sniggered and Malmson shook his head.

"I don't believe so except in an ab-

solute emergency. You see he is really a whale. He's not a variety of shark and—"

"We'll concentrate on something smaller today then. Jorgensen, you seem to be eager, so you take charge of the fishing party. Lieutenant McSaunders, I know it isn't in your department, but we haven't any departments any more, so will you take charge of unfurling awnings and rigging some extra ones since we're due to loaf here for a day or so. Lieutenant Malmson will report to me on the bridge and we'll talk things over. Jorgensen, on second thought, you're out of the fishing racket today. I want you to take all your NCO's* and furnish me by this evening a complete inventory of every article aboard. We must know precisely what we have to work with. The ship's service yeoman will turn over all supplies to the commissary steward. The rest of you will handle the daily routine as already assigned. Carry on."

THE crew, happy to have something to do, scurried away to the familiar jobs. After all, no matter where they were, the "McGinty" was there too. And where the "McGinty" was, was home. Johnny hurried Malmson away to the bridge for their conference.

"Any truth in that explanation of yours?" he demanded.

The Lieutenant grinned. "How should I know? Not much, I guess. It seemed to satisfy them though, didn't it? It was okay up until the place where I tried to explain the time dimension and then I improvised a bit to make it understandable."

"Good idea. Make any mystery seem common and ordinary enough

*Non-commission officers.

and people will accept it as an every day occurrence. Think we'll have any trouble with the men?"

"Not for a good long while at any rate. We're fortunate we have a picked destroyer crew, most of them second hitch men and with an unusual number of mechanical experts. Give us the raw materials to work with and with the tools we have aboard, we can do anything in time. Of course when the men realize that they'll never get back and have to stay in this epoch for the remainder of their lives it may be different. After we get settled down ashore, well, remember the crew of the 'Bounty'?"

The thought made the two men sober and serious. The story of the tragic end in the eighteenth century of the mutineers on Pitcairn Island was familiar enough.

"You think then that there really isn't any chance of getting back?" Johnny asked.

Malmson shook his head. "This isn't any Jules Verne trip to the moon where you fall around the satellite and then obligingly fall back to the earth again. No, my lad, if things are the way I believe, this is the real article and there'll be no happy ending to our story unless we make it ourselves. The chances were at least one in a hundred million of the 'McGinty' being in the spot she was when the time dimension scraped the earth at the precise instant it touched it. There's just the same chance of our being in the right spot again and as many more of our being returned to our own time if we were. No, we're here for good."

"Then the best we can do is to take the men to where New York was or will be and let 'em see for themselves. After that we'll pick out an island—that is, if we first don't

meet up with human beings we like, and who like us—and establish ourselves a base. I'll look after food supplies and quarters. You'll figure out some way of getting fuel for the "McGinty" and McSaunders will build us a plane so we can go look see what this world is like."

"And after that?"

"There's no sense in trying to look too far ahead, but I should say, 'women.' I've got 85 men of the best white blood I know of and I'm not going to let the race become extinct if I can help it. If necessary we'll go and take 'em. Duplicate the stunt of the Romans and the Sabine women, if we can't get what we want any other way. There's no use being sentimental about it."

"That's a long way off," said Malmson.

"I'll say it is. One thing I'm thankful for is that we have the latest edition encyclopedia aboard. There's a lot of knowledge in those books. As soon as we get started places I'm going to divide them up and make each one of us responsible for some specialty and know all they can tell us on that specialty. It'll give us all something to do and we'll soon have as fine a group of experts on most anything as we could wish."

"Good idea," grunted Malmson. "By the way, don't worry too much about fuel oil. We can run the 'McGinty' on grain alcohol or whale oil if necessary if you'll find me a spot to build a refinery. High test gasoline for the plane that Mac is going to build is a little more trouble but we've plenty aboard for awhile from the supplies for our auxiliaries and we'll manage. Now if you'll pardon me, I'm going to brush up on our astronomy so that tonight I can tell you 'when' we are if not 'where.'"

He accepted Johnny Morgan's nod with a flip of his hand and strode off whistling. Johnny stepped to the back of the bridge, as a crew of McSaunders's men arrived to unfurl awnings, and looked at his watch.

IT was eleven o'clock. It seemed incredible. Three hours and fifteen minutes before he had been a senior lieutenant wishing he had the "McGinty" as his command and a chance to see what she could do. Now he had her and the greatest opportunity any Navy man could ever dream of. The ship lolled lazily in the hot tropical sea. A couple of hundred yards away the fishing crews in a trio of lifeboats were having excellent luck and exchanging cheerful chaff with the working parties on deck. The sun was bright and warm but McSaunders's crews were rapidly changing the "McGinty" into a floating yacht as far as tropic comfort was concerned. The usual details were doing the daily chores and below him a working party was rigging stages and preparing to paint the foremast.

It seemed incredible and impossible that they were drifting in an unknown time in an unknown sea confronted with unknown terrors and that he, Johnny Morgan, was responsible for the lives and happiness of all these men. He had experience enough to realize that the longer he could maintain that atmosphere of casualness and regularity, the happier and more contented everyone would be. But they were Navy men and the pick of a fleet. When dangers had to come they would take it. For a moment he thought of his father and mother that he had expected to see at his home in Roanoke, the Roanoke he would never see again. And being human, he thought also of the

girl with whom he spent a week-end at Coronado just before the "McGinty" left "Dago." Then the boat-swain's mate piped "mess" and his steward (white, the "McGinty" had sent their little Philipinos all ashore) brought him a lemonade, and he felt better. He made a mental note to have the electrician install arrangements for the broadcasting of phonograph records over the crew's radio that afternoon and was glad he had a trunkful of new records purchased for the girl on the week-end at Coronado. McSaunders came up the companionway and dropped into a deck chair for his lemonade.

"Well, you bloomin' yachtsman, it isn't a bad world, no matter what time you find it, is it?" he demanded.

"No," said Johnny, "but you better keep steam up." He sniffed and reached for the speaking tube. "I hope your skeleton engine room crew can give us enough pep to keep away from Hugh's fish."

"They can," said McSaunders lazily, without moving from his chair. "Johnny, I've just remembered something. I had a wife in 'Dago'."

"You don't seem very perturbed about it."

"And just before the fleet left, she filed suit for divorce. The judge gave her half my salary as temporary alimony. What a laugh!"

"I wouldn't laugh too much." Malmson was climbing up the companionway. "You idiot! Don't you realize that now she'll get a pension?"

And then they went to lunch.

The "McGinty" held parade and inspection that night and when the flag came down and was furled they were all saddened for a few minutes. None of them would have omitted the ceremony; the double rank of white-clad

men and the three officers, all at the salute. It meant regularity and accustomedness to them, but it also meant wives and sweethearts and cities that none of them would ever see again. McSaunders felt the mood as much as any and shortly after appeared on the bridge with a half dozen bottles.

"I know it's against all Navy regulations, sir," he said, "but may I have the commander's permission to serve out a tot o' grog. It's what's left of a case I bought at Christobal."

"Don't you realize," said Johnny, "that you'll probably never see Baccardi rum again and that what you have there is undoubtedly all there is in the world."

McSaunders grinned. "No, 'tain't. I saved a bottle out for us. Anyhow, I doubt if it will ever go better than right now and I feel like buying the boys a drink. What say?"

"Carry on," said Johnny. "I'll admit they probably can do with it—and so can I."

The three men had dinner served on the bridge because of the heat and waited afterwards in silence with their cigarettes for the coming of darkness.

"Just so Hugh can tell us how old we are," said McSaunders, who appeared to have recovered his spirits, if indeed he had ever really lost them.

WHEN the sun dropped with the usual tropic abruptness, they unanimously stopped talking and when the familiar Southern Cross appeared in a strangely twisted formation, everyone heaved a sigh.

Malmson immediately got busy with his charts and measurements and Johnny helped him with his star sights, but McSaunders had nothing to do but wait. Below them the white

clad shapes of the crew loomed out of the darkness as those off duty grouped themselves noiselessly on the forecastle. Most of the men had sufficient education to make an approximate guess as to what was going on and they had inevitably passed on their information to the others.

"What's the idea of the big assembly?" Johnny asked once during a recess between observations.

"We've told 'em we'd find out where we are tonight," said McSaunders, "and naturally they figured out how we'd check it. It didn't seem fair to keep them in suspense so I told them that if you approved and found out anything definite, we'd let them know right away. Poor devils, they're entitled to it. One of my gang had a wife who was about to have a baby and now he'll never know whether it was a boy or girl. Those are the chaps I feel sorry for."

Conversation stopped then as Malmson called Johnny to resume their observations. Finally Hugh leaned over the table and pointed with his pencil to two charts, the one they were making and the other in one of their astronomical books.

"Check that, Johnny," he said, quietly, "and that, and, that, and that. There's no doubt of it. I haven't been absolutely accurate, naturally. One can't be with these instruments. But it's right within a thousand years."

"Close enough," said Mac. "What could happen in that short while? Gentlemen, 'at this historic moment, facing an uncertain destiny, the brave man lighted a cigarette and faced his fate unmoved.' How old am I?"

"You aren't," said Johnny. "You haven't been born yet and won't be for about fifty thousand years. Perhaps a little more or less."

"Gosh," said McSaunders, "I'm my own ancestor!"

His attempted humor sounded strained but the point of light from his cigarette was unwavering in the darkness. There was an interval which lengthened into minutes as the three of them tried to realize to themselves just what the discovery actually mean. McSaunders broke the silence first and he wasn't trying to be funny.

"I'm just a mechanic and I don't know much. Suppose you fellows tell me what our world is like."

Hugh Malmson answered him.

"It's a much warmer world, Mac, than it will be when you are born. We found that out today. Somewhere up in the Arctic the next ice pack is just beginning to move down as the world cools off. It's the end of the age of reptiles. Somewhere in the swamps there still live a few specimens, perhaps many, of Tyrannosaurus Rex and in the Gobi where someday Roy Shipman Andrews will find them, dinosaurs are laying eggs. In what the forests of Northern Europe will someday become, the Neanderthal man is in some stage of his struggle with what will in our time be known as the Guttenberg and Pilt-down man. Our forefathers have left the trees and taken to the caves and they've found fire. Of that much we're nearly sure."

"And there isn't a good looking woman on earth?"

"Almost certainly not. Most of the land is steamy swamps where nature is making coal and the oil that Fall will someday try to steal from the Navy from Teapot Dome."

"Wish we had him here with us now."

"And in the seas are monsters such as you were pleased to call my 'fish'

and quite possibly there exists the sea serpent which our breed of men have talked about for centuries but never seen. We may get the chance. And in the north on the edge of the ice pack the shaggy mastodon feeds on the tundra moss and in the south is the sabre tooth tiger."

"We ought to get some grand hunting," Johnny interjected in an effort to break the tension.

McSaunders refused to accept the hint.

"And men who follow my trade aren't born yet? There isn't a good mechanic, an electrician, or an engineer on earth?"

"Not except for the ones we have on this ship."

Mac arose and stretched himself lazily and with characteristic wastefulness his cigarette butt described a sparkling arc through the night.

"All I can say is that you are wrong somewhere in your calculations. Because I hear an airplane motor and it's coming closer fast."

He leaned over the rail. "Jorgensen!"

The man answered the call instantly.

"Break out a signal rocket and stand ready with a searchlight in a hurry. There's an airplane approaching and it's coming closer fast. Look alive, men, we don't want him to miss us."

Johnny turned to Malmson.

"Radio, Hugh! You'll have to handle it yourself so step on it." But Malmson had already vaulted down the companionway steps to take the place of his vanished operators.

JOHNNY MORGAN swept the skies with his night glass and strained his ears. It was amazing, unbelievable, it couldn't be and yet it

was. From somewhere out there in the night a plane was headed almost directly for the "McGinty." He buzzed the engineroom.

"Ready there with steam? We may have to pick them up."

McSaunders' voice answered him.

"We're ready when you need us."

And still he couldn't believe. There was something wrong. He leaned forward with his megaphone.

"Give him a rocket and stand ready with both searchlights."

The rocket shot up with its long arc of flame and burst with a glare of light over the primordial sea. As the flare died, the searchlights of the "McGinty" cast their questioning fingers aloft, searching the skies for something be it man or beast.

A boy thrust a message blank into the commander's hand at almost the same instant that the lights located an object and clung.

Johnny gasped and then suddenly the explanation of the mystery was made clear. The plane was a Graumman two seated scout from the "Lexington," an amphibian. He opened the note. The message was from Malmson.

"Lieutenants Ellington and Morrison of the 'Lexington' are coming in. Take the lights off and they'll come in alongside using their own beams."

Johnny snapped the order and then settled down to wait. The searchlights swung away from the plane and lay flat on the sea to illuminate the stretch of water adjoining the "McGinty." The pilot cut his motor and circled to come in with a long swinging glide.

Johnny raised his megaphone again.

"Boatswain's Mate, call away a lifeboat with full crew. Take extra

boathooks, two submachine guns and two auto-rifles. Service ammunition. Get moving, men."

The crew of the "McGinty" jumped as though for a fleet competition.

"Jorgensen, get a crew on that forward five inch. These lights will attract fish. Be ready to douse all searchlights on order."

The crew of the lifeboat got away as the Graumman hit the water and were ready as she taxied up.

A mile away in the glare of the lights a huge black blotch broke the surface of the sea and reflected the glare of the incandescents in monstrous gleaming eyes.

"There's your target, range 1700, get going," howled Johnny. "Man all fifty calibre machine guns on the starboard side. Fire at anything that shows."

He focused his glass on the blotch. The creature was on the surface now and moving leisurely toward them as if curious. Leisurely was hardly the word, it was obviously capable of tremendous speed.

The five inch gun let loose with a "wham" and a fifty calibre followed with its stuttering roar. The plane was in close now and the boat crew was rowing madly to pull it alongside the "McGinty."

Johnny megaphoned again.

"Jorgensen, get ready the forward hoisting derrick. We're going to have to take that plane aboard somehow."

BEHIND that horrible approaching head the sea vibrated with a series of hundred yard long undulating coils. A shell from the five-inch lit almost under the grotesque bewhiskered head. A near hit. The monster flinched visibly and then dived without a sound.

"Lights out," Johnny ordered and except for the gleam of the rising moon, the sea was again a blank. Two men came over the rail and Johnny leaped down the companionway to greet them.

"I'm Lieutenant Morgan, in command," he said. The foremost grasped his hand.

"Thank God," he said, "we're back with men."

McSaunders jumped out of the hatchway with part of his engine-room crew and took over the job of hoisting the amphibian aboard. The "McGinty" was never meant to handle planes but with a bit of prying and pushing they contrived to squeeze it in. Then the five officers met on the bridge deck as the "McGinty" got slowly under way, cruising to the north. McSaunders had known Ellington at Annapolis and they staged an impromptu reunion. Ahead of the destroyer the searchlights swept the sea in brief wavering arcs, on for ten seconds and then shut down for a minute as no one wished to attract more of the sea monsters if it could be avoided.

"Guess the first thing should be to rustle you some grub?" Johnny suggested. "I don't suppose you've had anything except emergency rations since you left the 'Lexington'?"

Ellington nodded and McSaunders dropped down the companionway again to rout out the cooks. Not that this was especially necessary as the entire crew of the destroyer was again mustering on the foredeck, curious as only sailors can be, for news of the arrivals.

The two flying lieutenants were half starved and out of courtesy the three officers of the "McGinty" smoked in silence until they had finished eating. Out in the east a tropi-

cal full moon was rising slowly from the water as at last Ellington pushed back his plate with a sigh of satisfaction.

"That's that," he said, "now the next thing is, where are we and what's happened?"

"Suppose you give us a report first and then we'll tell you what we've figured out and guessed at," Johnny suggested.

Ellington nodded. "Very good. We took off from the 'Lexington' at about five o'clock this morning. Our mission was to scout ahead of the fleet on the lookout for the usual mythical 'Blue' forces. We were to report back to the 'Lexington' at about eight hours. Solo reconnaissance.

"It was a lovely morning and we were heading back to the fleet at about 7:45 when we saw the destroyer squadrons start to lay a screen. I'd say we were about thirty miles away and flying at about 12,000. All of a sudden we hit the worst bump I've ever encountered in a ship and we both went out cold.

"Morrison, here, woke up just before we would have crashed and managed to get the ship under control enough to set her down. In landing we broke a feed line and the oil pressure system went haywire. We'd instructions not to use radio so we decided to sit there until the fleet came up. There was no sea to speak of and we broke out some emergency rations and decided to have breakfast. Then we got ourselves attacked by mermaids."

"Mermaids!" The three officers leaned forward in incredulity. Ellington nodded.

"I guess that's what they were but Morrison insists they were mermen instead and certainly—but this is what happened. We were sitting there

in the cockpit as nice as you please having an after breakfast cigarette when it occurred to me that the fleet should have hove into sight by then. I turned around to say as much to Morrison and there were two of the biggest, slimiest looking creatures I've ever seen climbing up from under the bottom wing. They were on the pontoons already and their weight was nearly sinking us. I was so astonished for a moment that I could only gape at them. Damn it all, they had arms and hands instead of fins.

"Lookit," I managed to blurt out to Morrison. "Stew! We've got company!"

"He turned around and let out a yell you could have heard from one end of the 'Lexington' to the other, and went for his pistol. Because of the angle, we couldn't use the fifty calibres on them and there was nothing to do but shoot it out with the automatics. Golly, they were tough, show 'em, Stew!"

Morrison stood up and turned around and they saw a tear in his flying coat which ran from his collar to his waist and left a red welt on his skin.

"That's where the first baby got ahold of me," he said. "Ellington finally managed to shoot him off my back and the creature cried like a child. After that the second one was easy but there was a whole Sunday School around us. For awhile we'd take pot shots with the .45's but they learned to dive when we shot and it didn't do much good. So we decided to make temporary repairs ourselves and get the hell out of there. We finally managed to patch up the Graumman just before dusk and took off and was I glad when she finally lifted from the step. Those babies, men or maids,

were getting ready to rush us and we'd have lasted about ten minutes after dark when we couldn't see 'em.

"When we lifted, the air was dead and after listening for a minute we decided to radio the 'Lexington' and get her position. Couldn't get any answer but after we'd cruised around for half an hour we saw your rocket and decided to come down. If it didn't seem so unusual with the fleet missing and everything, we'd never dare tell what happened. Imagine a Navy fighter being attacked by mermaids. The whole fleet will be laughing."

"I thought you said they were mer-men?"

Morrison nodded. "They were men all right, at least the one that grabbed me had a beard. Ugh!" He shuddered at the recollection.

"Never mind about that," said Ellington. "Where's the fleet and how do we get back to the 'Lexington'?"

McSaunders chuckled. "According to my respected superiors the fleet won't come into existence for some 50,000 years and you ain't agoin' to ever get back."

Ellington scratched a match for his cigarette and looked disgusted.

"What's the idea? Are you fellows looney too or are we all nuts together?"

Johnny Morgan shook his head.

"When we sighted you we'd just finished making preliminary star maps. I'm afraid there's no doubt of it. We checked carefully and the stars are in approximately the positions they occupied 50,000 years ago. We can't tell accurately with the instruments we have to work with but there's no doubt of the approximate result."

Ellington jumped to his feet. "I'm not doubting your word for it, but

let me see for myself. It seems incredible."

Malmson cut into the conversation.

"Incredible or not, it's true. When the time dimension scraped the ocean, you fellows must have run into one side of it as we did the other. That would give the point of impact a breadth of about twenty miles. It only was here a fraction of a second or we'd none of us be anywhere to tell about it. Just a 'whoosh' and it was gone somewhere into inter-stellar space. But that instant was enough. It looks as though your plane and the 'McGinty' are the only two craft that moved in time—but it sure did plenty to us."

Ellington shivered. "I'll say it did." Disregarding the star-maps he turned in his chair to make a long survey of the heavens with his naked eye.

"They do look different, don't they? Whew! Say, have you noticed that?"

Malmson chuckled. "I was wondering when all of you would notice that. Yes, my lads, I'd advise you all to look carefully at our lunar neighbor."

WHILE they had been talking the moon had risen well above the horizon and now hung in the sky in gorgeous full-blown beauty.

Morrison cocked an eye aloft. "What's the matter with it? It looks all right to me."

"Nothing's the matter except that it's moved in. If the old lady is 240,000 miles away now, I'm a Marine. I'll bet she isn't more than a hundred thousand miles distant if she's a mile. And hey, wait a minute." He dashed down from the bridge to get the most powerful telescope aboard, a five inch affair that was his personal property. They waited until he brought up the instrument and fo-

cused it. "I thought so," he said finally, "but who would have believed it?"

Johnny Morgan shoved him aside. "Let's look," he said. "It is probably quicker to do that than to get you to explain understandably."

Malmson paced up and down the bridge in excitement while his commander took a series of sights.

"Who would have thought it," Johnny said at last. "And Hugh, I'll swear I can see clouds."

"Will you two stop jabbering and tell us what all this means?" Morrison and Ellington made the demand in unison. Johnny Morgan answered them.

"Sure," he said. "It's the same old moon you boys used to neck under on Flirtation Walk but you're looking at a side of her that nobody ever saw before."

"The dark side of the moon," gasped Morrison. Johnny nodded.

"Yeah. More than that, she's still revolving, very slowly, but revolving just the same. And I'm convinced that I've detected clouds, just the remnants of an atmosphere. Hugh, here, will make spectroscopic tests of her as soon as we can get together the apparatus and then we'll know for sure."

"D'you mean then," said McSaunders, "that she might still be inhabited?"

"Probably not, but if she is, the poor devils haven't got long to live. She's moving away fast and will continue to do so until she gets into a state of equilibrium at 240,000 miles. That means she's now leaking air from her atmosphere like a bum diving suit. You notice there's few meteoric craters as yet but as soon as she loses enough air the iron babies'll begin to break through her atmosphere. And then—curtains!"

"Poor devils—if there are any," said Malmson.

Johnny nodded. "You're telling me? They must have seen it coming for centuries. Oh, well, it's not our funeral and probably they all died thousands of years ago."

He got up with an air of decision. "It's been a hard day and you fellows are all in. I'd suggest that you, Ellington, see if your plane is safely lashed down in case it should come on to blow a little before morning. Hugh, you tell the men forward what we believe we are sure of and leave out what we suspect. Mac, be sure your staff is on their toes and can give me plenty of power in an emergency. Remember huge fish. We don't want to tackle another of those babies under bare steerageway. I'll take the first watch and we'll talk the dope over again in the morning."

"Okay, sir," said Ellington, as he and Morrison started down the companionway, "but may I ask where we're going?"

"Sure," said Johnny, "we're under orders to go to New York. So first of all we'll head in to where we're supposed to be fifty thousand years from now. After that we'll figure."

Ellington stopped and looked at him for a long moment and then saluted before he descended to the deck.

"That's okay by me," he said.

CRUISING slowly to the north under bare steerageway, the "McGinty" quieted into her accustomed nightly ghostliness. There is something dangerous about a destroyer under way at night, a sensation of leashed deadliness, of tremendous power and fearful efficiency. Sliding through the night without a sound, invisible except for her tiny side

lights, she is enough to make any man feel impressed. But this night, in this world, there were no men to catch a glimpse of her in the clear light of the monster moon riding close overhead. And if anywhere on that primordial earth there were men who might have seen her, there would be none to understand.

For a while Johnny listened to the rumble of Malmson's voice as he related the adventures of the amphibian to the sailors forward. Then the white clad figures dispersed into the gloom and, except for the usual watches, the "McGinty" was deserted. Johnny leaned his elbows against the bridge rail and looked ahead. Somewhere, a mile or so in advance, there came a vast, roaring snort as some forgotten creature wallowed in the warm sea. He waited and as the sound was not repeated, he turned to Hugh's neglected telescope and focused it upon the moon.

More than anything else, the sight of that huge round orb hanging so fearfully close overhead served to convince him that this was really true. He, Johnny Morgan, was off on his big adventure at last and none of his watchfulness could foresee and no man living could foretell what perils they might encounter.

He bent again for another glance through the 'scope and then jumped. Some object had come between his lens and the moon. He reached for his binoculars and focused them. High above the "McGinty," almost directly overhead and paralleling her course was a squadron of ghostly flyers passing north by west.

There must have been fifty in the fleet, long narrow batlike wings of 30 to 40 foot spread, the fuselage was narrow and long with a prolongation out front. The ships seemed to

vary in size but one and all were noiseless. Or—he put down the night glass and listened intently. From far overhead came faintly a harsh, vulture-like croak.

A fleet of pterodactyls, those flying lizards of a primeval world, had just passed over the "McGinty." It was many minutes before he resumed his pacing of the bridge and, after Malmson had relieved him, it was nearly dawn before he stopped his tossing in his bunk and relaxed in sleep.

Johnny Morgan, rash youngster of the Naval Academy, football hero, brash, incautious officer of the United States battle fleet, was becoming mature at last.

Responsibility ages all men and never was that more true, than with the five young officers aboard the "McGinty" during the next three days, as that destroyer steamed slowly northward. Under Johnny's orders they slowed to bare steerageway at night as none of them could have any idea as to the present contour of the coastline. Anyway they were none of them in any hurry. As McSaunders put it, they had all the time there was and no matter how much they wasted, they could never use it up.

The weather continued excellent and every evening there was an astronomical session on the bridge-deck where all of them under Malmson's tutelage reviewed their knowledge and studied the huge glowing disk overhead which sometimes hung so low over them that it seemed to be about to brush the water.

The daytimes were filled to overflowing with the innumerable details to be supervised. At dawn the "McGinty" hove to, while fishing parties put away in an effort to conserve food supplies. They found good hunting but saw no more of the monsters

although Jorgensen shot a number of gigantic seals.

JOHNNY'S inventory of the supplies aboard ship was completed and revealed, as he told Malmson, almost as varied an assortment of goods as those the Swiss Family Robinson* had landed with—and equipment to make everything else. One of the crew even turned up with an assortment of government seeds both flower and vegetable that, in line with the desire so many sailors profess to eventually settle down on a farm somewhere, he had collected from a beneficent government. They salvaged and put carefully aside, a peck or so of wheat, corn and oats that somebody had once purchased for some birds that had been aboard as pets. Malmson insisted that when they became farmers the seed would probably grow.

Weapons and ammunition were, naturally, plentiful. They still had enough fuel for five thousand miles of cruising. There was enough "high test" to keep the Graumman in the air for at least a hundred hours and Ellington and Morrison had completed their repairs. Food shortage wouldn't begin to bother them for at least a couple of months although Johnny cut down the rations a third—which was easily made up by the fishermen.

It was when they tried to figure the conditions they might encounter that they finally gave up and decided to "wait and see," and meanwhile to be prepared for anything. By nightfall of the third day their dead reckoning put their position as some hundred miles off New York and they

* This is the name of a famous juvenile story or novel that met with high appreciation a number of years ago. The author was Johann Wyss, a Swiss (1781-1833).

decided to lie to and wait for morning before chancing a closed approach. It was well they did for when the dawn mists lifted they found themselves some twenty miles offshore. The five officers gathered on the bridge.

"Well, gentlemen," said Johnny, "there she is, but where we actually are is more than I can figure."

"Some navigator, aren't you," grunted McSaunders. "Okay, what's the procedure?"

"Simple enough. We'll move in as close as we can and look for where Long and Manhattan Islands ought to be. If our figures are right the Hudson must be in existence and it must empty into the ocean somewhere. We'll find it and see if there isn't a harbor. I don't much like the looks of the weather."

As they moved in closer they found that the shoreline was a series of tremendous bluffs, varying from four to six hundred feet in height.

"Swing her a little to the north, Johnny," suggested Malmson. "I believe I can see silt in the water."

They cruised a couple of miles to the north and rounding a headland saw before them an opening that looked like the mouth of a large river.

"Just in time if I'm any judge of flying weather," said Ellington. "My lads, it's coming on to blow."

And blow it did. The storm hit them before they could possibly have expected it. Before the haze had obscured the sun they felt that dead calm which precedes hurricane wind.

"What'll we do, Hugh?" asked Johnny. "Put about and run for it or chance our finding a harbor?"

"We're too close in," decided Malmson. "I don't believe we'll have time to run. Give her all she's got and take a chance."

With all of them praying there were no bars in the river channel, Johnny gave the "McGinty" all the speed he dared and they dashed for shelter. Behind them the white caps were already sweeping shoreward in tidal wave size as they rounded the bluff and before them opened a landlocked harbor.

"Way enough," ordered Johnny, as they shot between the headlands, "ready with both anchors! Now! Let fall!"

As the "McGinty" swung around the hurricane hit. Although Jorgensen and a deck crew had been working frantically to furl awnings, two of them blew away with a thundering scream at the impact of the wind. None of the officers had ever before seen such blasts. They had hardly lost steerageway before it was blowing a hundred miles an hour and gaining strength every minute. Ashore, on the opposite side of the bay where the storm had a clear sweep the tremendous tropical trees were crashing to earth in a resounding procession.

"I'm glad we didn't try to stay outside," Johnny screamed in Malmson's ear as they dived for shelter, "I'll bet there is a two hundred mile wind behind that headland."

Malmson nodded. "I knew we'd see tremendous storms but never as bad as this. I'm glad we didn't run into this weather at sea."

AS the rain came with the ebb of the first blasts, Morrison and Ellington joined them in the "McGinty's" wardroom. Having secured the lashings on their plane they were both wringing wet.

"Gentlemen," said Johnny, "I give you the Hudson River. We're home. Like it?"

Ellington nodded. "Good navigating. It doesn't look much like home though, but I will say that your welcoming demonstration seems to be magnificent enough."

McSaunders joined them. "This is better than the fireboats and the Mayor turning out," he said, cheerfully. "Two skyscrapers have blown over already and one of them's the Empire State.* This storm of yours is enough to make Miss Liberty put out her torch."

He looked around at their somber faces.

"Well, who's for going ashore? I want a cocktail at the Ritz and I'd like to see a good show."

"Cut it out, Mac," said Johnny, wearily, "we're all too damned homesick. And to think how little we appreciated it when we had it."

They were all affected the same way and they stood at the ports watching the slanting rain drive into the boiling swells. Home. The home that none of them would ever see again.

Johnny Morgan was the first to snap out of it.

"We'll have to stage our own welcome," he said. "Let's be drawing up plans for our landing party. We'll be going ashore as soon as this moderates."

But it was two days before the weather calmed enough for them to consider a landing. Long before then their plans were matured and as soon as it was agreed to be safe, the "McGinty" weighed anchor and stood up the river.

"Is this the Hudson or the upper Amazon?" demanded Johnny as, with Malmson beside him, he stared at the

steaming jungle which grew clear to the water's edge on both shores.

"Perhaps it is neither one," said Malmson, "although it looks about like I'd expected. I'd suggest you drop anchor about here. I believe we can work a landing party up that shoulder to the crest and perhaps have a look around."

While the two aviators were again overhauling their plane which had suffered some damage as a result of the storm, it had been decided to send a small party to "see what they could see." Everybody wanted a chance to stretch their legs and Johnny had some difficulty in selecting who was to go. He'd decided to leave Malmson in command of the ship and risk no more than fifteen men, ten of whom would remain on the river bank in sight of the ship as a covering party.

McSaunders, who strangely had done big game hunting and was a keen sportsman, had begged to go along and although it would be impossible to replace him in the event of his becoming a casualty, Johnny had finally given in, principally because he was the most resourceful man aboard ship. They got away by mid-morning in one of the auxiliary launches towing a lifeboat, and made their landing without difficulty. Under McSaunders' direction, the covering party chopped down trees and constructed a rough barricade to serve as a base.

That completed, Johnny sent one of the crew, who claimed to be an experienced woodsman, on in advance as a scout and with McSaunders and three men, he started the climb to the heights. The whole party was heavily armed, two of the men wheeling a fifty calibre machine gun which, because of the impossibility of carrying water for it, would undoubt-

* A tall building on Fifth Avenue, New York. It exceeds the Eiffel Tower in height. It is occupied by office

edly jam after a minute or so of firing, but at the same time gave more protection than any other weapon available. The two leaders carried grenades and auto-rifles which, because of their greater penetrating power, had been selected in preference to sub-machine guns. The third man packed rifle grenades.

In this fashion they progressed slowly upward toward the beginning of the shoulder which seemed to be some quarter mile in the jungle. The underbrush was thick and they kept the advance man in sight with difficulty.

"What was that?" demanded Johnny suddenly after they had advanced over three or four hundred yards in the bush. Off to their right had come a tremendous crashing as some huge body forced its way through the thickets. Simultaneously there came a yell from the scout who had again disappeared from view.

The crashing on the right was repeated. It was so thunderous that a whole tree must have been beaten to the ground and the earth itself shook.

"That," said McSaunders, cocking an ear, "is either a tank or one of Hugh's fishes given shore-leave. It's coming closer. Beat it for that clearing at the right."

It was coming closer, and fast. Burdened with the machine gun the party made a dash for a hundred yard wide open space to their right. Acting without orders, the grenadier dropped on one foot and lobbed a rifle grenade into the forest behind them where it burst with a thunderous crash and resulted only in a tremendous threshing and shrill roars of anger.

IN the momentary delay the machine gunners reached the far edge of the clearing and stopped to

set up their weapon. The grenadier sent a second grenade to follow his first just as a tremendous beast burst through the trees. They first saw his head through the treetops as he shouldered his way through the last fringe of forest. To Johnny Morgan that head with its triple row of fangs resembled, except for the lack of smoke coming from the nostrils, nothing so much as the fabled dragon, and even in that tremendous moment his thoughts went back to a colored picture in a childish story book. The reptile stood at least forty feet tall and as he halted for a second on the edge of the clearing before catching sight of them. Johnny saw that he was kangaroo-like with proportionally small forelegs and a huge long tail. McSaunders' face went white and he fumbled with his blouse as the machine gun burst into fire with a roar and the grenadier tried to dodge the leaps of the creature by running to the left.

"Fire at his head, you idiots, you'll never slow him down in the body!" Johnny shouted and at the same time the grenadier stumbled and fell and McSaunders plucked an object from his blouse and heaved it with a slow overhand arc as he dropped to the ground.

"Down everybody," he shouted. The monster made one tremendous leap forward and there was a terrific explosion.

For a minute Johnny Morgan thought every man in his party had been killed and then, as the cordite fumes and smoke cleared away he rose on one knee and peered forward. The giant lizard still stood upright, its head and half its neck completely blown away. Even as he looked it made one spasmodic bound high in the air and fell kicking on its side.

"You idiot," Johnny shouted, "did you want to kill us all? What of the grenadier?"

"We'd never have stopped him and you know it. And there's three of you and only one of him."

Regardless of the still plunging body he likewise got to his feet and started forward.

"You wanted tyrannosaurus rex, Johnny," he said. "Well, you got him."

"What was that you heaved?" demanded one of the gunners as they started forward. Johnny spoke over his shoulder without looking backward.

"Latest type trench mortar shell, of course. Nobody ever dared to heave one by hand before. Only an idiot would try it."

McSaunders walked around the body critically.

"Good job I did or none of us would have been here now." He stepped casually between the plunging hind legs and avoiding the lashing tail by inches, emerged with the body of the grenadier as casually as though he had entered his own engineroom.

"Poor devil," he said, "first casual-

ty. Well he knows now if his wife had a boy or girl."

It was the husband of the expectant mother he had previously mentioned on the "McGinty." Miraculously although the man had been almost directly under the plunging body there was not a mark on him.

"Concussion got him," said Mac, laying the body on the ground. "My fault, of course."

"It is," agreed Morgan. "Hard lines, but it's better to lose one man than five and he'd have got it anyway. He isn't the only one. There'll be others before we're done."

"I'll bet," said one of the machine gunners, "he never expected to get his in a scrap with a thing like that. Baby, what a boxer that fellow would make."

He was regarding the body of the tyrannosaurus curiously.

"His forearms are short so that when he isn't scrapping he can pull down tree tops and eat 'em. He's omnivorous, and the fiercest of all the reptiles," said Johnny brusquely. "Pick up the body of Morton there and let's be on our way. We've got to find out what happened to our advance man."

END OF PART I



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Conclusion

CHAPTER XV

ONE MORE TIGER

THE next morning the hunter and iron worker awoke early. He took the best of his sharp knives and his precious, beautiful iron needle and placed them carefully in his medicine bag with the piece of tiger skin and the tooth of the sea-cow given him by his father. Then iron tipped arrows and the spear with the sharp metal point at the end and the iron hammer he left with Fire-Man, to whom he said good-bye, promising to return as soon as he could.

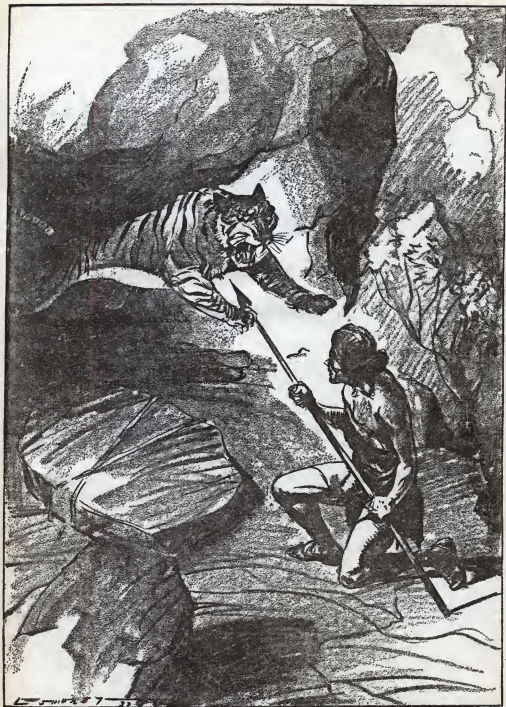
The two young men, buoyant with the hopes and dreams of youth, little realized what the future had in store for them. More Bear took a bee-line northward, towards his beloved green-clad mountains. He purposely avoided the Centers. He even refused to talk to the occasional man he met in the forest. He simply gave him the signal of peace and manhood and passed rapidly by him. At last he came to the long river, and up that he went till he came to the gap in the mountain. There he paused. He knew that high above him on the top of the mountain one more tiger waited for the Boy Scouts to start on the path to manhood. He remembered the day when he had faced the tiger with his friends and how some of those friends

of his boyhood had been carried to the side of the mountain and thrown down into the trees, hundreds of feet below. One of those boys was the brother of Possert, the Scout Master. He looked up the mountain side and thought he could see, here and there among the green branches of the spruce and hemlock, the white bones of those who had died, trying to gain manhood.

He wanted to think, but his thoughts were twisted. Was it all necessary? What part did the Fire God have in this annual sacrifice of fine young lads? There was the start of the path, and the end of that path was in the Temple, at the Altar of the God. He looked at his left hand, where the end of the little finger had been cut off. That was the blood sacrifice which bound him to the worship of the Fire God. He had taken that God and made a servant of him. He and Fire-Man had used the God; they used his heat and his breath; they had even been able to make him whenever they wanted to. Yet, this was the God that made a nation live in certain ways that were unpleasant and uncomfortable.

And, somehow, the tiger, waiting in the cave up on top of the mountain, was a part of that God. Not the God, but a part of him.

It was springtime. The leaves were budding, the flowers were starting to



The hunter knelt on one knee which pressed firmly on the ground, as did the end of the spear which was held by both hands.

make the green fields beautiful. Birds were singing, and butterflies were trying their new wings. He wanted White Pigeon, but, somehow, he knew that there was one more thing to do before he could come to her.

It had been four years since he had been on the top of that mountain. He knew that in a few weeks a troop of Boy Scouts would go there and kill the tiger, waiting for them. Some of them would die with the tiger.

He started up the mountain.

At last he came to the cave where the saber tooth animal was waiting for the ceremony that he did not understand any more than the man looking at him understood it. More Bear made his plans. He knew just where he would stand, just how he would stand, just how he would carry out the killing. Then, and only then, he climbed up and pulled on the rope which would loosen the stone and liberate the beast.

He pulled the rope and ran swiftly down into the open space in front of the mouth of the cave. So fast did he move that he was on one knee, his spear in place, one end braced on the ground, the other in the air before the great beast made his first spring.

It was rapid preparation, but it was perfect in its position and time. The hunter knelt on one knee which was pressed firmly on the ground as did the end of the spear which was held by both hands. Every muscle was tense. The tiger saw the man and sprang, and, as it came down through the air to kill it, fell on the spear, which plunged through its chest and heart. At the same moment that the spear entered the tiger, More Bear jumped to one side and just escaped the killer's claws.

He jumped and he ran. Though, sure of the deadliness of his stroke,

he also knew the wonderful vitality of those animals, and that, even when dying, they were dangerous. The tiger ran after him, but, at every jump, was handicapped by the end of the spear's striking the ground and catching in the brush and small trees. He turned to bite and claw at the stick which bothered him, and then he slowly started to die.

More Bear watched him.

At last he ventured near him, and, with one swift, vicious stroke, he crushed his skull in between the eyes with his battle ax. Then he pounded and pounded at that massive head till he worked the great canine teeth loose, and these he wiped carefully and placed in his medicine bag. Then, slowly, with the skill of a hunter, aided by his sharp, iron knife, he cut the dead thing up and carried it, a piece at a time, to the edge of the cleft, and threw the pieces over, exactly at the same place where every year some torn Boy Scouts had been hurled. He took dirt and threw over the blood-stained ground, and then, and only then, did he go down the mountain and back to the river.

Plunging into it, he bathed and swam till all the blood was off his white body. He washed the teeth, and he polished them with leaves.

"That was a kill that was worth the killing," he said.

CHAPTER XVI

THE RIVALS

ALL that night he slept with peace and many happy dreams, and on the next day he arrived at the Center. Rather quietly he walked into the city and first went to the home of his parents. Many Bear and Lambkin were more than glad to see him. Long ago they

had given him up for dead. They sat with him on the bear skins and told him all the news of the last four years. Much of the news was real news to him. He had little to tell of what he had done, simply saying that he had been on the solitary road, trying to learn how things were done in other parts of the nation.

Later on in the day he went to see Possert, the Scout Master. Possert looked at him gravely.

"Where have you been?" he asked.

"Almost everywhere."

"What have you done?"

"Things that needed to be done, and learning the wisdom of those I met."

"Have you heard of the dark people and the battle fought at the Lion Center?"

"Not till today."

"You should have been there. It must have been a great killing, and you would have taken pleasure in it."

"I am tired of killing," answered More Bear, gravely. "I wonder if there is not too much killing? Of course, these dark ones wiped out the Grain Center, and they had to be killed, but it was a price we had to pay, a heavy price we had to pay for that killing. Had we known more, we might have done it in some way without having so many of our men die with the victory. How is everything here?"

"Fine. In a week I start with the new troop of Boy Scouts. You see, I am still Scout Master, and this year we have thirty boys to start on the path to manhood."

"Thirty? A larger number than usual, from what I can remember of the past. Are they good material to make men of?"

"I think so. They have been well trained."

"Hope none of them are killed.

Seems a shame to raise boys and then take them down every year and have some killed, just when they are ready to make good men for the Center."

Possert looked at him rather critically.

"But that is the path they must follow. Otherwise, they would never be men. Anyway, there is not much difference in values, having them killed or having them away from the Center, as you have been for so long."

"Perhaps you are right. But I learned a lot during the years I was absent. Nearly all I wanted to know I learned in some way or other. Now, I am on my way. So far, I have not seen White Pigeon. No doubt, she is rather much of a woman by this time."

"She is. More than one of our young men have wanted to marry her. Had you stayed away much longer, you might have lost her. Perhaps you have lost her already. She is so interested in her work with the carrier pigeons that she says she cannot see how she can marry anyone."

"She may tell me that. At least, I am going to give her the chance."

"How should you like to go to the mountain with me when I take the Boy Scouts?"

"I think not. You can get along very well without me."

"It seems to me," commented the Scout Master, "that during the four years you have been away something has happened to you. You are not at all the kind of man I thought you were going to be, when I trained you as a boy scout. Anything wrong?"

"No. Guess I just became a man. At least, I hope so."

THE young hunter had to go to the pigeon house to find his old sweetheart. He found her busy mat-

ing pigeons and making the records. She was so busy that she seemed to have hardly time to answer his greeting.

"I am glad you are back," she said rather shyly. "In fact, I am very glad to see you, because all of us had made up our minds that you were never going to come back. So, I went on and kept my days busy with the pigeons, so I should learn to forget that you had ever lived. I have done well in my work. In fact, I am in charge of it now, and my pigeons are the fastest in all the Centers. In five more years I think that I shall be asked to train the other Centers in the breeding of fast pigeons. At this time I am very busy. It is the mating season, and we cannot let them mate in any haphazard way. It all has to be supervised."

"I know that, but when can you take a walk with me?"

"Probably in a few weeks."

"How about this afternoon?"

"No."

"Tomorrow afternoon?"

"No."

"When?"

"This afternoon, to have it over with. You see, there is a young man interested."

"I know. His name is More Bear."

"Is that so? I thought his name was Panther?"

"I remember him. Nice enough boy as I recall him. I will see you this afternoon. I am going now."

More Bear hunted up Panther.

"Come with me to the Old Man," he demanded.

"Why? What is wrong?"

"I have a matter for him to decide. Is is all according to the Law, and I follow the Path in doing it."

"Then I will go, because we both started on the path at the same time.

If it is the Law, I have no choice."

The two young men came into the house of the Old Man. Wrapped in a blanket of coon skins, he sat on the wall, enjoying the warmth of the sunshine.

"I come for judgment," said More Bear.

"And I come because this man has asked me to, in the name of the Law."

"I will listen to you here," the Old Man said. "As men, you can sit near me and say what you have to say."

"My words come first," said More Bear, in a low voice. "I am a man of this Center. The little finger of my left hand shows that I became full man in the Temple. As a boy, I loved a girl of this Center and she loved me. After I became a man I followed the Lone Journey, as was my right, and I have returned to the Center yesterday. I am ready now to marry the woman I loved as a boy. I am told that during my absence Panther has asked her to marry him, but she refused. As he is still unmarried, it seems that he still wants to marry her. I demand the Mating trial, according to the Law. It is my right."

"What does Panther say?" asked the Old Man.

"More Bear stays away for four years and then comes back and moves swiftly. All he says is true, though I have not told him. But when I became a man I returned to the Center. I have worked for the Center. It is true that I love White Pigeon, but she has not promised to marry me. She says that she will not marry anyone. But if she does marry, she should mate with me, because for these four years I have been a worker in the Center and I love her."

"Yes, she should marry someone," sighed the Old Man. "She should have married long ago."

He looked the young men over carefully. In many ways there was no choice between them. In size, weight, age, and strength they seemed to be well mated.

"Will either of you give way for the other?" he asked.

The only answer he received was silence.

"Then, we shall have to go to the trial. Most of the men are in the Center, so we will have it at high noon. Meet me on the high roof."

CHAPTER XVII

THE FIGHT ON THE ROOF

AT noon the Old Man, all the men of the Center, including Panther and More Bear, gathered on the high roof, the place of judgment for many generations. There decisions were made, council held. A meeting there was always important, a ceremony, demanding the presence of all the men and no women.

The Old Man spoke.

"Two of our men have asked for a trial. They both love the same woman. The best man wins, not the right to marry, but the right to ask the woman to marry. These men are More Bear and Panther. Has any man a question?"

One man spoke.

"Is the trial of blood?"

"It can be. That is for these two men to say. In the old days this trial was always of blood, but for many years no one has demanded it. The Law says that each man can fight with whatever he wishes. Panther, what have you to say?"

"This is a very serious thing to me," replied the young man. "This trial was forced on me, and is not to my liking, but, since More Bear has de-

manded it, I will go on with it. I use my battle ax. This is a trial by blood and to the death. There is no other way."

"What do you say?" said the Old Man, turning to More Bear.

"I do not want any blood shed," was the reply. "Panther is a brave man and a good man. I knew him as a boy. We were in the same class of Scouts. I like him, but I cannot let him marry my woman. I fight with my hands."

"You have heard these men!" said the ruler. "Has anyone anything to say as to why this trial should not be a blood one, with one using a battle ax, and the other his hands?"

Many Bear stood up.

"One of these men is my only son," he said. "For many months I thought him dead. Now, he has come back to us. It is not my right to tell him what he should do, but I want to say that no one in this Center, or perhaps in any other Center, has ever heard of a trial with one man armed and the other defenseless."

"That is true," said the Old Man, "yet both men act in their right and according to the Law. There are only two things to do. Go ahead with the trial or have them go before the Old Man in the Temple at the time of the making of Men and have him decide. If either wishes this, I will so order. Otherwise, the trial will go on as these two men wish it."

"It had better go on," said More Bear. "I am the only son of Many Bear, and I know that he does not want me to come back from the dead and then die at once, but this is a thing of my own, and even he will not stop me in my decision. Let it go on."

"Form the circle," spoke the Old Man sharply. "This is the Law. No

one shall go into that circle to aid either man. The trial goes on till one of the men is killed, or unable to fight. Panther and More Bear! Get in your corners, and when I throw dust into the air, start. This is the Law."

The men of the Center lined the low walls of the roof. The sunshine filled the wide open space. The two young men stood in their corners, More Bear with empty hands, Panther with his stone battle ax. The Old Man scooped a little dust from the dirt floor, looked at it carefully and then flung it into the air. A light wind carried it out over the city.

The fighters walked carefully toward each other and then Panther sprang forward, swinging his ax. It was a long jump and a well aimed blow at the head that would have ended the fight at once had it hit. More Bear fell to the floor. For a second it seemed that he had been hit, but in the next second it was apparent that he had fallen as the only way of dodging the blow. He ran back to the side of the ring and then he turned and again faced his opponent who had remained in the center. Again they came together; again the blow was aimed and carried over the fallen body of More Bear. It almost seemed as though Panther were being played with.

For the third time they faced each other. This time, instead of a swinging blow, Panther used the overhead chop. But, with the ax starting to fall, More Bear threw himself forward and struck Panther at the feet, throwing him forward, but on top. There was a whirling, a vain effort to get a deadly hold, and then they sprang apart, but this time More Bear had the battle ax. It had slipped out of Panther's hands as he fell forward

and his opponent had found it first.

He took the ax and handed it to the Old Man.

"Take it," he said. "That also is the Law. From now on we fight my way."

He turned and walked with slow, easy steps toward Panther.

Panther's strength was well known. While not the strong man in the Center he was easily the largest and strongest of all the young men. More Bear was known only from memories of him as a growing boy. The spectators had thought it a most unequal fight when the battle ax had been used. Without the ax they still considered it to be a one-sided conflict with everything favoring the man they were well acquainted with. The things that pleased them most was their idea that, with the ax out of the way, there would be no chance of a killing.

Suddenly the two men met, each with his arms clasped around the other's body. It was the beginning grip of a wrestling match, a favorite sport with all the men and many of the younger women. It was a test, not only of strength, but of agility, of holds and locks.

The arms tightened.

There was no doubt but that with this hold Panther would slowly crush the other man. Suddenly, More Bear changed his grip. One arm went around the neck and the hand of the other arm caught Panther's chin, forcing the head back. Slowly the head was pushed back, back until the stronger man was forced to break his body hold to save his neck. And then came the great surprise.

More Bear picked the other up, held him in the air and started to turn him around and around.

And ended by throwing him on the dirt floor.

He did not follow the advantage; simply stood there and waited till the battle began again. Once more they met, and once again Panther was twirled around in the air and thrown to the floor.

IT was a new form of attack. Something the men of the Center had never seen, something that Panther appeared unable to defend himself against.

It was the novelty of the attack, the simplicity of it, the ease of the execution which deceived the spectators. They only saw what was happening, did not realize the great strength the man was using in the spin, the terrible force with which the dazed Panther was being thrown to the dirt.

But the next time they met Panther, throwing caution to the wind, plunged in, took his favorite body hold, and held there. His chin down, it seemed impossible to become free from that terrible strangling hold which looked certain to break More Bear in two. He not only tightened his grip, but he dug his nails into the body to make the grip more certain. More Bear simply stood there, breathing shallowly, his feet braced, and let the other show his full strength.

And that strength was not enough. When the last pound was used, the last ounce of reserve expended, it was not enough. More Bear was suffering, but he was smiling, almost laughing, even though the Panther's claws were digging and ripping into his flanks. It was not till in desperation the Panther started in to bite, that the smile changed to a slight frown. Then and only then did the passive attitude of the challenger change. He raised his dangling arms and placed his left hand on Panther's right shoulder and

his right hand around his elbow, and gave one great slow twist.

The older men saw in that twist something of a terrible strength they had rarely seen before, and certainly had not expected to see in this battle. They leaned forward in tense, silent, suspense as they saw that right arm go back, back; saw the right hand loosen and finally drop limp from the elbow, and finally saw Panther jump backward in a last desperate effort to escape the punishing grip.

More Bear let him go, but More Bear was laughing again, the laugh of confidence. With a gesture of sheer supremacy, he waited a few seconds and then, in one jump, caught his prey and once again raised him for the fatal spinning throw. Panther was thrown to the floor, once, twice, three times, and the last time he lay there, unable to rise. There was not a mark on him, but More Bear was covered with blood from the bites in his shoulder and the nail gouges in his sides.

He turned to the Old Man.

"Is it enough?" he asked. "I do not want to kill. This man is a brave man and of value to the Center. He is helpless. I do not want to hurt him."

The Old Man took a handful of dust and tossed it in the air. Once again the golden particle drifted in the spring wind, each little piece made more golden by the warm sunshine. At last the air was clear and still Panther remained unconscious, asleep, stunned by his repeated falls.

"It is enough," said the Old Man. "This is the end of the trial. More Bear has done wisely in not going on to the killing. Has anyone a reason why this matter should not be ended?"

No one had an answer.

More Bear walked over to his prostrate foe, bent over him and started to

move his arms. At last Panther opened his eyes.

"He is not hurt," said More Bear. "In a little while he will be all right. I did not want to hurt him, but it was very necessary that this thing happen. Now, I will go."

He was the first of all the men to leave the high roof. Looking neither to right nor left, speaking to no man, he left the Center and went directly to the lake, where he swam in the cold water till all the blood was washed from his white skin.

CHAPTER XVIII

WHITE PIGEON IS STOLEN

HE came out of the water, stood in the sunshine till he was dry, and then, with his blanket of skins wrapped around him and his medicine bag in his hands, he sat down on a heavy clump of moss and shut his eyes.

During the long, lonely months with Fire-Man he had learned to think. Now he was doing this, and his thinking was not at all peaceful.

"I am on a new trail," he said to himself. "Few of us have ever been this way, and, of those that have, only Fire-Man and I are alive to tell it. We have lost all we had, our God, our families, our homes. Nothing remains to us of the old things. We have left the Path and the new way seems to be one of strangeness and doubt. I should never have come back to my home, because it is no longer mine, and the ways of my people are no longer my ways. Even today the men wanted Panther to win, because they knew all about him and they knew nothing of me. Even the way I fought was new to them. White Pigeon would have been better off had she stayed

with her pets and married the Panther. He would have made her a good man, while I will bring to her nothing but trouble and sorrow. If I knew where and what a real God was, I would ask Him to help me, but the only God I know of I have destroyed. The old Path is ended. It would be best to stay here till I find a new Path I can follow."

All that day and all that night he stayed there by the lake. The next morning his mother, Lambkin, came with corn cakes and a bowl of milk. He did not speak to her, and she placed the food by him, sat for a while and then returned to the Center. More Bear left the food untouched.

Late that afternoon the Old Man and Many Bear came to the lake side. They were clad in their best robes.

They sat down beside the silent young man.

It was not till a long time had passed that the Old Man spoke:

"We come to tell you something that you must be told. Will you hear us?"

"I hear you."

"Panther has gone from the Center, and he took White Pigeon with him. It happened last night. It seems that the woman had gone to look after her birds and he caught her. There was a struggle; she did not go willingly. At least, we are sure he used force. Some of the cages were broken; there was blood on the floor."

More Bear frowned, but he did not make any comment.

"The trial should have settled this," went on the Old Man, "and, in doing the thing he did, Panther has broken the Law. Your father and I have come to you to tell you. If you wish me to I will have all the men of the Center take up the trail. So far, all we know is that Panther went towards the river."

"The Old Man and I have talked this thing over," said Many Bear, "and we do not think this is your own matter to decide. The Law is the Law, and it should be settled by the entire Center. But we can only say that to you, and allow you to say your say."

More Bear threw his skin blanket off his shoulders and reached over for the bowl of milk and the cakes. He ate the food slowly, folded the blanket, and handed it to his father. Bending over, he carefully tightened the leather laces of his shoes. Then he took his weapons, his spear, bow and arrows, hunting knife and battle ax and handed them to the Old Man.

Only then did he break his silence.

"What has to be done in this matter," he said, "I will do by myself. You speak of the Law. I know the Law; Possert taught me all of it when I was a Scout. The Law says that after a trial, if the man who loses departs from the decision, he shall die. The Law also says that if a man takes an unmarried woman into the woods against her will, he shall die. Perhaps I should have killed Panther when he was asleep, so he would never have done this thing. But he has done it, and now there is no undoing. I will not have him trailed like a wild thing by our hunters. What has to be done, I will do by myself and alone."

Many Bear shook his head.

"You cannot go into the woods without weapons?"

More Bear tied up the leather thongs which held his medicine bag to his belt.

"Thus I go. Ask the Old Man. He will tell you that thus men go at times."

"He is right," answered the Old Man. "At times, when great things happen to a man, so he does not think clearly but seems to have his body

filled with an unseen thing like a God, he goes into the woods without weapons, and stays there, and, because even the animals see that he is no longer a real man but filled with a God, they do not harm him. There is something strange and different with your son, Many Bear, but he has a right to do everything he speaks of, and no one has a right to say 'No' to him. Now, I will tell you one thing. Our hunters followed this man to the river and then down the river. They tracked the trail to the lone pine tree on this side of the Water Gap. You will be able to pick up the trail there. Can we get food for you?"

"No. I have eaten. And, now, I am on my way. Father, I want you to tell Mother that I thank her for bringing me the milk and the corn cakes, and tell her also that till this thing is done that has to be done, I will not eat again. I wish that you had more sons, for I fear that the only one you have has caused you more sorrow than happiness. And, now, I go."

He started off on a dog trot, which, by dark, would bring him to the lone pine tree. There he would have to stay till daybreak, and from there pick out the trail.

The two older men watched him.

"He is my son," said Many Bear. "He is my son and the son of my wife Lambkin. All the time she was carrying him she was making a book. She said that her child would be a male child, but she did not want him to be a hunter. But after he came, she did not try to train him in her ways. But she did teach him to read the books she had made. Do you suppose that what she hoped for and what she did made the young man different from other young men?"

"I do not know," answered the Old Man. "I remember you when you were

a Scout, I was your Scout Master. You wanted to be different. After you had become a man, nothing would content you but that you must go to the Tiger country and kill one alone without help. There was a time when you came back that you were different. It was not till you married and had a child that you were like the other young men. Your son has been away for many moons, and we do not know what he did or what he learned or what he thought. I watched him when he fought Panther and for a while it seemed to me that he did not care, that nothing made any difference. It was not till Panther bit him on the shoulder that he started in to fight, really fight. Even when he won, he did not want to kill, and after it was over he came here by the lake and went into a dream instead of claiming White Pigeon. Something is wrong."

CHAPTER XIX

PANTHER IS KILLED

TWO days later Scout Master Possert left the Center, with thirty Boy Scouts, to start them on the road to manhood. They marched down the river road. There they met, as they had met for many years, the Scouts from the other three centers of that part of the nation.

Possert came back, with thirty Scouts, a day earlier than usual.

He at once went to see the Old Man.

"You are back soon," was the comment.

"I am. I have a most peculiar tale to tell."

"Tell it!"

"I took the troop of Boy Scouts down to the Water Gap as we have done for many years. The other three Scout Masters met me. We saw the

man who feeds the tiger. He said that he had thrown into the feeding hole a large calf seven days before, according to his custom. The tiger was there at that time. At least, he heard him roar when the calf dropped into the hole. At the appointed time the Scouts were placed in their proper place and we loosened the stone; so it rolled away. We had told the Scouts to shoot the arrows at once at the hole, and thus we hoped to save their lives. We felt that every year there had been too many of the boys killed. They did as we commanded, and we killed the animal that jumped out. But it was Panther who died with thirty arrows in him instead of the tiger. And that was something that seemed very strange to all of us. He was dead, so could not tell us anything about it. But it seemed to us that since he had been in there he must have killed the tiger. So, we went in, and there was no tiger and no signs of any tiger and no signs of any fight. Now, Panther might have gone in there to escape More Bear and his anger and the tiger might have escaped, but if he did, how did Panther shut the stone behind him after he was alone in the cave? For you know that the stone can only be moved from the outside.

"We have carried the body of Panther back with us. The arrows were left in him. He came out fighting. Perhaps he thought the men of the Center were waiting there to kill him, and, while he was wrong in many ways, he was not a coward. Here is another thing that I cannot understand. He had all his weapons with him when he died, and there were no wounds on him except those from the arrows."

The Old Man frowned.

"White Pigeon came back to the Center yesterday and she was alone. Perhaps she can tell what happened.

I will send for her and talk to her alone."

The young woman came at the orders of the Old Man. She was in her ceremonial dress as fitted the occasion, and in her hand she carried one of her pets.

"My Child," said the Ruler. "I want you to tell me freely the things that have happened to you. I want you to tell me everything, and leave nothing unsaid."

"I will do that," answered the woman. "After the trial, about which I only heard a part, I went, as always, late in the evening to see my birds. There Panther caught me, tied me and carried me off on his shoulder. Far from the Center he put me down and made me walk with him. He told me that he would kill me if I did not come. He said that he was going to take me into the dark forest and live there always with me, and the way he talked I knew that he was a bad man. We reached the lone pine and from there went over the mountains into a country I had never seen before. Every time we stopped, he tied me to a tree. I left a trail, a broken twig here, a kicked pebble there, and now and then a hair from my head. I knew that some one would follow us. The second day, when I was tied and Panther was resting, More Bear came, and they fought. Panther had all his weapons and More Bear had nothing but his hands but, in the end, Panther was down and tied with the very leather thong with which I had been tied. Then More Bear took up Panther on his back and told me to follow. We went to the mountain above the Water Gap, and More Bear dropped Panther down a hole in the rocks, and then he sat there and asked me to marry him.

"He said that he did not want to

live in the Hunting Center. He was tired of killing all the time. It was hard for me to understand just what he wanted to do, but it all amounted to wanting to marry me and go away somewhere and live with him. It meant that I had to leave the pigeons, and, in the end, I told him that I could not leave them. I was willing to marry him, because I loved him, and always have loved him, but the breeding of the pigeons was my work. He thought a while about it and then said that he would see me safe to the Center and then leave on another lone journey.

"That is all I know of it. He left Panther in that hole with all of his weapons. He brought me safely back and left me at the lake. Then he left me and went away without a blanket and without any weapons, not even a knife. Simply his medicine bag tied to his belt. It seemed to me that he was very tired, and some of the things he said made me feel that his Spirit had gone out of him. But one thing I am sure of. He did not hurt Panther. There were some corn cakes left in Panther's bag, and he threw them down the hole so the man would not be hungry."

"Was More Bear hurt?"

"Yes. An arrow went through his shoulder, but he said it would heal."

"In all of this, my Child, you have done just what you could do. Both of these men were in love with you, and you are in love with your pigeons. Go and forget both of them, and in a year marry. That is my command. In a year marry, and, perhaps, you can do this and, at the same time, take care of your birds. You can go."

The Old Man sent for Possert.

"We will go to the Temple as usual," he said. "I will send word to the other three Old Men. Our boys have not

followed the Path, but this was not through any fault of theirs, and, perhaps, when the Old Old Man hears the story, he will allow them to be made men even though they killed only a Panther instead of the tiger. It may be that some change will have to be made any way, because the Lion Center is no more, and all of the hunters are dead. How can we get tigers every year? But all this is strange to me, and I am following new paths which I cannot understand. What happened to the tiger? There is no doubt that More Bear took Panther and placed him in the deep hole where the calves are placed to feed the tiger. The stone was not moved and, yet, the tiger was gone. What is your idea?"

"A simple one. More Bear did not want to kill Panther. He would not have put him down there, knowing the tiger was there to kill him. He knew that the Scouts would be there soon to start on their way to manhood. He knew that Panther would live till we opened the door. I am not sure that he thought the man would be killed, but he did know we would find him and bring him back to the Center to punish him for breaking the Law. He did not want to have a part in that punishment. All he wanted was to save White Pigeon. Evidently, he and your daughter could not agree about marriage. I have been talking to her. She would not leave her pigeons and he would not stay here in the Center. So, he brought her back to you and your wife. Your wife works with glow-worms, your daughter with pigeons. The ways of women are past my understanding. It seems that any woman would have been glad to mate with More Bear, but your daughter wanted to go on with the breeding of birds instead of with the breeding of children. Did More Bear kill the tiger?"

"I do not know. But I do know that Many Bear killed one by himself when he was a young man. It may have been in the breed. But if he did, he did it, knowing that without the tiger our boys could not start on the Path."

"And none of them would die. Remember that. Your brother and More Bear were close together. Like two leaves on the same branch. He saw your brother killed. He saw the other boys killed. And several times he has said that he wants no more killing. In the trial he refused to kill Panther. When the man took your daughter and there was a fight, he again held his hand from the killing. I know what I think. You had better go now and prepare for the journey to the Temple. The wisdom of the Old Old Man will have to be great to tell us just what the Path is from now on. But I am glad that your daughter, White Pigeon, has come back to you and to your wife and that she is not harmed."

Possert went back to his home.

"Why did you send your man away?" he asked his daughter. "I thought that you loved him?"

"I love him more than any man," the young woman answered, "but he wanted me to leave my pigeons."

CHAPTER XX

FIRE-MAN IS CAPTURED

AFTER More Bear was satisfied that White Pigeon was safe, he started off into the forest. He was sure that there would be a number of sharp questions asked him if he returned to the Hunting Center, especially after Panther was found in the tiger cave. In spite of the added responsibility, he would have been glad to have taken White Pigeon with him, but he realized that there

was a good deal of common sense in her refusal to leave the Center and that he did not have very much to offer her.

Under his worry was a great homesickness for the little cave he and Fire-Man had lived in for so many months, and he did feel sure that if he could only spend some more months there, some of his problems would be solved. So, with the sure instinct of the trained woodsman, he took a bee line for the cave and his friend. He ate as he went, roots of shrubs, fresh berries, an occasional rabbit or squirrel, killed by a thrown stone. Avoiding as best he could the danger of the larger carnivora, he came, at the end of six days of almost constant travel, to the cave that had been a real home to him.

Fire-Man was gone.

Everything in the cave was broken, destroyed, strewn in a hopeless wreck over the floor.

There was only one answer to the question.

His friend had been discovered, made a captive and even now was being taken to the Temple for judgment and death.

He carefully searched through the broken things on the floor and finally found what he was looking for, the flints they had used in building fires. He placed two of the best of these in his medicine bag and then went outside the cave, and sat down.

To his great surprise, a young woman stole out of the bushes and called to him.

"Are you More Bear?"

"I am. Peace be with you. Who are you?"

"I am Little Rabbit. After you left this place the man you called Fire-Man came to his Center and talked to me. We have known each other for

many years, since we were little children. He asked me to come and live with him, and, though I knew that he had done a bad thing, I did as he asked me, because I loved him. I kept warm by his fire and ate the food he made for me in that fire and the thing was bad, but the food was good. Early this morning I went out to pick berries, and, while I was gone, the men came and took my man and broke everything he had made, and I suppose they would have taken me if they had found me. He told me about you, told me how you looked, and, when I saw you and the way you acted, I was sure you were his friend."

"This happened this morning?"

"Yes, only a little while ago."

The man started to examine the tracks in the dirt. At last he said,

"There were only a few men. Have you food?"

"Just these berries."

"We will eat them and then we will get Fire-Man, because if he reaches the Temple, he will die, and that must not be, now that he made the Fire God a servant and tamed a woman. Let us eat and go. The track is plain. The men think they will not be followed and have taken no care to hide it."

Traveling fast, they came on very fresh tracks by late afternoon.

"We must go slowly now till dark. Then these men will tie Fire-Man and sleep till morning. They will take little care, because they do not fear you and do not know about me. Then we will get Fire-Man and we will go toward the setting sun and over the great river. The dark ones are there, but I am not so much afraid of them as I am of my own people."

It was the time of the full moon. There were great shadowed spaces in the dark forest, but here and there

were open places, which were almost as light as day. More Bear took his treasured iron knife out of his medicine bag and carefully rubbed the edge with a small piece of sandstone. He and the woman were on a ledge of rock. Below them, and not far away, Fire-Man sat on the ground, his back to a small tree and tied. Three men sat before him in the moonlight.

"You wait here," the hunter told the woman. "We will be back soon."

From far away the three men heard the hunting call of the saber tooth tiger. Once heard, it could not be forgotten. Again the beast screamed, and this time it was nearer. They jumped to their feet, spears, bows and arrows, battle axes ready to defend themselves as once again the cry came, still nearer.

And then between them came a fighting, slashing thing that raked them with knife-like claws, all the time howling its rage, and then as suddenly left them in a great silent fear.

Not one of them was killed or disabled, but all of them had on their bodies the long marks of the tiger's claws. And when they had time to think about him they found their prisoner gone.

They arrived at the Temple just as the meeting of the Old Men and the initiates was taking place.

"We have a tale to tell," their leader told the Old Old Man.

CHAPTER XXI

THE OLD OLD MAN WORRIES

THERE was a young woman in our Center, called Little Rabbit. She was not a large woman, and she spent most of her time making food, and she did not

want to marry. Many days ago she left the Center, and, as she was alone, and we feared harm would come to her, our Old Man told me and two others to track her and bring her back. We followed her tracks and found that there were two, and at last we came to a cave where we found the man, but the woman was away and the man told us that she was dead and there was no need to look for her.

"This man said his name was Fire-Man. He would not tell us what his name had been or what Center he had come from. But in the cave were many things which showed that he had departed from the Path and had broken the Law and should be brought to the Temple and judged by you.

"The Law that he broke was the Law of our Fire God. He had the God in his cave and he boasted that he had made it, kept it for his servant, used the breath of our God.

"We went a day's journey and then rested for the night, and he was bound to a tree. Early in the night we heard the cry of a tiger and soon we were attacked. All of us were hurt, but none killed. The tiger, however, carried our prisoner away with him. We left at once and we traveled all that night, it being moonlight, and we have come here to tell the tale."

"You did not examine the ground for tracks?"

"No. We left at once before the beast returned to kill."

"He came among you, slashed you all and yet did not kill?"

"He did not kill, except the prisoner we were bringing here."

"My son, Many Bear, is here. He has hunted the tiger. I will ask him to look at your wounds."

Many Bear came from his group of men and carefully examined the three

men. Their cuts were from one to two feet long, with clean edges, and were already beginning to heal. At last he told them to put on their blankets.

"What do you think?" asked the Old Old Man.

"I have hunted the Tiger. Once I killed one by myself. I have seen the bodies of many men and boys killed by these beasts. These cuts were not made by a tiger's claw. Had they been, these men would not be here today. They were made by a knife."

"What kind of a knife?"

"Not by any kind I know of. Certainly not by a stone knife."

The Old Old Man opened his medicine bag and took out a knife.

"When I first became the Ruler and came to sit in a gold chair, a young man was brought here, charged with breaking the Law, and he told that he took our Fire God and iron ore and made sharp things with it, and he had this knife that he made. I placed the knife in my Medicine Bag and there it has been since. Take it and tell me whether with such a knife a man could have cut these men the way they were cut?"

Many Bear took the knife, felt the edge, made sweeping movements through the air, and then handed it back to the Ruler.

"Such a knife would do it."

"Perhaps such a knife did it!" cried one of the Old Men.

"No. The man who made this knife, burned on the altar long ago."

"That is true," agreed the Old Old Man, "but this breaker of Law called Fire-Man was taken by another man and not by a tiger, and that other man had an iron knife with a sharp edge to it."

Many Bear went back to his group, frowning.

CHAPTER XXII

GODS OF THE DARK ONES

IN the meantime, Fire-Man, More Bear and Little Rabbit were going to the land of the setting sun.

"And what we find there is something we can only tell when we get there," remarked More Bear. "All I know is that it is death for us to stay in the land of our own people, and it may be death to leave our own land, but, between these endings, I think that the last one is the better of the two; so, we will go. First, I want to go to the Lion Center. There was a great fight there, and since that fight no one has ventured that far towards the great river. There will be weapons there, arrows and spears and battle axes, and we must have something to fight with. Otherwise, we shall be like little animals in the jaw of a lion."

"We shall be anyway," replied Fire-Man. "I am little and I never have fought much, and, though you are strong, you are but one."

"We will go and get weapons as soon as we can. There is no time to make any. But, in the meantime, we shall be safe at night."

"How can we be safe at night without a cave?" asked the woman.

"Climb a tree," replied More Bear. "Be like the little monkeys that I saw in the hot country. They are little and cannot fight, but no lion could get to them. We will live on in some way. But we will not live with our people, for all of us have left the Path and broken the Law, and anyone has a right to kill us."

For ten days they went toward the great river, and, finally, they came to the deserted Lion Center. The buildings had not been harmed in any way. They went to the place of the fight, and there they saw hundreds of white

bones, picked clean by the birds and washed by the rains and snows and whitened by the summer sun.

"This was a great fight," mused the hunter. "I heard of it from my father, Many Bear. The men of the dark people came here, and on one side they faced the lions and tigers and on the other side the men of the Center slew them, and there they all died. Only one man was left to carry the news to the Old Old Man. There are good weapons here. We will each take a bow and arrows, and Fire-Man and I will pick out spears and battle axes, if we can find some that have not been broken. These strangers must be very great in size. You can easily tell their head bones from those of our race. We will spend the night in a room of the Center and then we will go to the Great River and in some way cross it."

"How shall we do that?" asked Fire-Man. "They say that it is very large, and now it is in the spring flood."

"We will again do as the monkey folk do: find a dead tree and, sitting on it, we will go where we go. If we had time, we would make a boat, but, for all we know, the hunters are after us. We can only be safe when we are across the water."

They did just the thing that the hunter suggested. They found a dead tree, washed down by the flood and held to the bank by the roots. By digging the dirt away, they loosened it so that it started to float down stream, and, on it, they rode all that day and all the next night till the morning brought them to the other side. It was mud and swamp and little bugs there, but the hill land was beyond, and afternoon brought them to the mountains and forests.

"I wish we could find a cave," sighed Little Rabbit. "A cave and

something to eat besides the berries."

"We will get everything in time," said Fire-Man, cheerfully, "and we will have fire, and food cooked by it, and we will keep warm."

"And I will go and kill meat, and if there is iron ore, I will make tools and a needle for you so you can sew skins. What is to be will be, and we shall not know of it till it happens to us, but anything is better than to be tried in the Temple and killed and burned on the altar of a Fire God that we know is simply our slave. But, first, let us hunt for a cave and some dry wood, and I will make fire, and we will eat, for there are many birds and little things here, and the killing of them will be easy, for they are many and do not seem to be afraid."

They did not find a cave, but they did find a flat rock up on the side of the mountain, with high rocks back of it and steep rocks filling many feet on the sides and front, so that it could be defended easily. There they carried branches of trees and dry bark, and Fire-Man took the flints and cleverly started a fire and soon he and the woman felt better. The hunter left and came back in a little while with a large bird which they cooked in the fire. The woman had the only blanket of fur, but with the fire, they did not need it. So they simply spread it on the rock and slept on it.

Often during the night the hunter put more wood on the fire.

From the mountain above them and below them some of the dark people saw the fire. When morning broke, many more came to see it, so that soon from every tree and from every high rock they looked on the White Ones around the fire.

More Bear was the first to see the strangers. He told the others.

"This is not a time of fighting.

These people are on the trees like so many leaves. We must simply stay here and wait to see what they will do."

In an hour they saw two men approach the rocks twenty feet below their fire, carrying a dead deer. This they put on the rocks and ran away.

"They want to feed us!" exclaimed Little Rabbit.

"Either that or they want to trap us, and this is the bait," argued Fire-Man.

"We will wait and see," decided the hunter.

All that day the inhabitants brought things for the three on the rock; they brought furs and nuts and even a live goat with a kid.

"I am going down there and will take their gifts," whispered More Bear. "I think they are trying to make friends with us. I will carry a burning branch in my hand and go down among them, and if they kill me now, it will be nothing more than they could have done earlier."

SO with a fire brand in his hand, he climbed down the rocks. He put on one of the skins, ate some nuts, cut a leg off the deer and then climbed up to the fire. A murmur came from the forest, a murmur of almost happy satisfaction.

It was Fire-Man who arrived at the right solution:

"They think the fire is a God," he shouted, "and, because we made it and have it serve us, they think we are greater Gods. We came into their land, and they feared that we would destroy them; so they brought us gifts to ease our anger. Now that we have taken our gifts, they are no longer afraid."

"They are trying to tell us that they are glad. They are simple folk, though

great in bone and muscle, and we are to them Gods. We can be their Gods. They will worship us and care for us and serve us, as our people have served the Fire for so many generations. If we live with them, they will be our people, and we will be their Gods. Thus, we can live safely and in peace, for they seem to be a mighty people."

"I believe you are right," replied More Bear. "Let us go down among them, each carrying the fire, and we will let them carry us to their Center where we will live and rule them."

"I can see some of them among the rocks," commented the woman, "and they certainly seem to be more like animals than men. Do you think they will kill us when we go down?"

"We shall have to see," replied Fire-Man. "One thing is certain. If they want to kill us, they can do it, no matter where we are, because they are many in number and we are but three. So we might as well do as More Bear suggests: go down to them as though we were not afraid. Perhaps, if we carry the fire with us, they will fear us so that they will not hurt us."

Slowly, the three climbed down the rock, each with his weapons and each with a fire brand in his right hand. Once on a level, they were surrounded by a ring of hundreds of the strangers who kept, however, at a respectful distance. They were large, powerful, brute-like men, with no women or children. In their hands they carried clubs of wood. They were covered with hair, and, though they walked upright, their thick bodies and long arms, heavy frontal bones and deep-set eyes gave them indeed an appearance of huge bears or gigantic apes. A few of them wore skins, tied to their shoulders, but most of them were without anything resembling clothing.

Their speech was simply a low chorus of harsh murmurs, but a few of the leaders seemed able to command, by sharp barking noises, the beginnings of a real language.

More Bear placed his weapons on the ground, handed his fire brand to the woman, and started to walk towards them with his arms in the air, his palms towards them. It was a gesture of peace. They seemed to understand it, for one of the largest of the men came to meet him, holding his hands in the same position, but soon falling to the ground, a token of surrender. The hunter went up to him, patted him on the head, and, taking his hand, raised him to his feet, and then patted him on the shoulder. Taking off his own fur robe, he traded it for the lion skin worn by the leader of the dark people.

It was a symbol of friendship, of offered peace that was well understood. The dark man turned and faced his people and uttered a long series of barking sounds. At once, the dull murmur of fear changed into a chorus of loud, laughing sounds. They seemed to be happy. More Bear took the leader and led him over to Fire-Man and the woman. Once again he took the blazing branch in his hand, and, pointing to his mouth, showed that they wanted food and water.

The tall dark leader pointed to the land of the setting sun and showed, by signs, that they should walk there. The hunter showed that they would not walk, but must be carried. Thus, in a little while, the three adventurers were being taken on the shoulders of the beast men through the forest, but each of them held tightly to his precious fire brands.

In a little time they came to the village of the dark ones. There were

huts, crudely built of sticks, leaves and mud; there were the women and children. In the center was a large hut, evidently the home of the big man of the tribe. He offered it to the three strangers. More Bear refused to take it, but, selecting an open space, he took his lance and drew a large circle in the dirt. In the middle of the circle were placed the three blazing sticks. He showed by signs that they should bring him more dry wood, and this he placed in a pile outside the circle. Then they placed their weapons and their furs inside the circle, built a larger fire, and sat down. Food was brought them; meat, nuts, and fruit. Around them the dark people squatted, chattering noisily. The leader passed around, showing everyone his new fur, which added greatly to his importance.

CHAPTER XXIII

A NEW LIFE BEGINS

“THESE are simple people,” commented More Bear to his companions. “They are very simple. They know nothing of the things that we know, and, because we know so much and because we have fire, which they have never seen before, they think that we are Gods and will worship us, even as we worshiped the Fire God before we knew that it was not a God but a servant.

“So we will live here and be Gods. Thus we can live and be safe. We will teach them some of the things we know, such as making weapons of stone, and the use of the bow and arrow. We will teach them to fight and how to wear clothing and live in better houses. First, we will make them build a large house for us, and, in that house, we will have an altar, and

there we will keep the fire, and we will have no one feed that fire but ourselves, and we will not let them use the fire, for then they would think that they also were Gods and as wonderful as we are. Then they would kill us and take our places. As long as we can teach them things they do not know and make them feel that we are great ones, they will care for us."

"And they will not kill us?" asked Little Rabbit.

"No. I will not let them," said Fire-Man, bravely. "You are my woman, and I will care for you. I wonder if there is any white clay around here? It would be fine to build things like I had in the cave. There are a lot of things I want to do, and now that there is no need to fear, I can do them in a bigger way. Perhaps I can find new ways to use this fire and its breath, the thing I call steam."

"And I will work with iron, when I have the time," cried More Bear. "But, first, I must teach them how to make fighting things out of stone and how to use them, and we will then have a great army of fighting men. When others come against us, we will drive them away. We will build a city with walls to it. They are big men and very strong, and they can build a city of stone. Thus, we will live, no matter who comes to destroy us."

"But where will you get a woman?" asked Little Rabbit.

"I only want one woman," was the reply, "and she wants her pigeons more than she does me; so, for the time, till she learns more wisdom concerning what a woman needs, I will live without any of her sex, for I certainly cannot mate with one of these women."

Both of the men were exceptional personalities, but Fire-Man had little

of the leader in his make-up. It was necessary for More Bear to make all the contacts with the new race. This he did in a surprisingly capable manner. He took one man and taught him to flake stone for making spear heads and how to fasten spear heads to a stick with leather thongs. He drove this man to his work, and did not stop till he, not only was able to make spears, but was also capable of teaching others. In a month every man in the tribe had a spear, not a beautiful one, but, at least a useful one. Then he taught the tribe to use the weapons in fighting and hunting, how to throw them and how to thrust with them. The men learned quickly, in fact, showed a remarkable degree of ability for acquiring the new knowledge.

From a tribe of shiftless, aimless half men, the strangers rapidly grew into a community of workers. Not all were willing to learn the new ways, but, when they found how much easier it was to hunt with spears than with sticks, they became enthusiastic. They were taught how to make war clubs, and, finally, a few of the brighter ones were told about the bow and arrow and were taught how to use them.

MORE BEAR learned their language, a rather easy thing to do, as they did not have more than twenty sounds for the most common things, and no nouns. Once this language was learned, it was easier to command the people. With this ability, work went ahead faster. A large hut was built of rocks, and in it the new Gods lived with their fire. A twelve foot wall of rocks and earth rose around the village. Everybody worked. Keeping them busy was a simple matter after several of the shirkers were killed. By the time fall came, a walled city stood in place of

the former collection of one-room huts. Everybody wore some kind of fur. All the men had stone weapons and knew how to use them. Hunting was easier, food was more plentiful. Nuts and grain and dried meats were collected and stored against the needs of the winter.

"They are children," commented More Bear, "but, in this childhood of theirs, there is promise of a new and a great race. They learn easily. Their Chief now knows some words of our language. I have let him be a great man, and, as the great man, he tells his people the advantage of living with Gods. So far, all is well with us, and the time may come when we shall see the wisdom of what we have tried to do."

The time came that very winter. It was a cold winter, and other tribes of the dark people were restless and hungry and on the march. They came in a great mass from the land of the setting sun, and found the city of the new Gods in their path. Under the old life it would have been a conflict of beast against beast, with the stronger and the most numerous killing the weaker. But this time they found the weaker on top of a wall and able to kill them with flying sticks and to crush them with stone hammers and pierce them with lances, and, at the head of the defenders, three white ones, carrying long sticks in their hands. These were red on top, with something there that they had never seen before. Therefore, they feared so greatly that the many fled before the few and the city was saved. And then the dark ones knew, indeed, that their Gods were great Gods, and they worshiped them as never before, because their tribe had been saved from destruction.

After that battle a very peculiar

thing happened. Just what caused it, what primitive thought was back of it, the three Gods did not know, but, after it happened, they worried a great deal about it, wondering what it meant and how it could be kept from happening again.

Five of the leading men of the dark people asked to come into the Temple and to bring gifts to the Gods who lived there. Before that, they had all been allowed to visit the Temple, and see the fire burning on the altar. A very few of the leaders had even been allowed to eat meat cooked on the altar, but that was a very special reward of great merit.

These five men were permitted to enter the Temple, and they brought with them one of the young girls of the tribe. According to the standards of beauty of the dark ones, she was very lovely. She was dressed in fine furs. Each of the men brought a branch of dry wood, carefully cut to fit the altar.

That ceremony also was a thing that had been taught them. The food of the fire had to be of the best, and everyone who visited the Temple had to bring a piece of wood with him especially cut and carved. The visit of the men, their bringing of the wood, was understood by the three Gods. It was a part of the new Law. What they did not understand was the reason for the woman's being brought into the Temple.

CHAPTER XXIV

A GIFT TO THE GODS

THE whole trouble arose over a lack of language-communication. More Bear knew all the language of the dark ones, and the Chief of the tribe knew about twenty

words of the new Gods. Two of the words that he and almost all the people knew were *gift* and *God*. The word, *Fire*, had not been taught to them. It had been thought best to make them feel that the name was too terrible for them to say and that the saying of it would kill them.

The Chief and his people had an idea in their heads. They wanted to make a real gift to the three new Gods and the wonderful nameless thing that lived on the stone altar. So they brought this young girl into the Temple, and, after placing their gift of wood on the fire, they sat down, and the Chief started to talk. As best he could, using few words and many signs, he told about what the Gods had done for his people, how they had taught them about the use of stone for weapons and how to kill at a distance and how to save food and destroy their enemies. And because of this he and his people wanted to make a gift to the Gods. Would the three Gods accept the gift?

"I know what they want to do," exclaimed Little Rabbit. "They think that More Bear is lonely, and they bring this girl here to mate with him and work for him as his woman. I know the girl, and have taught her how to make fur into clothing and how to make corn cakes. She is a nice girl, perhaps the best of all that have not been mated."

"That must be it," agreed Fire-Man. "And they think that if she lives with More Bear, and has children by him, it will keep us here because the thing they are afraid of is that we will leave them, and never come back. Better take her, More Bear."

"No!" said the hunter. "I do not want her for my woman, but she could live here in the Temple and work for Little Rabbit and learn many

things, and then she could go and teach those things to the other women, and the tribe would be better. I think I will tell these men that their three Gods will accept this gift."

He stood up and talked to the five men. As best he could, he told them that the gift was acceptable to their new Gods and that they might leave the girl in the Temple. The acceptance seemed to make the five very happy. They crept over and kissed the feet of the three white ones, and then they went over to the girl. But before they could be stopped, before the three had any idea of what was going to happen, they drove a spear through her breast and placed her bleeding body on the fire, and then placed new wood around it.

The three Gods saw it all, but too late to do anything more than watch it. Then the five left, happy and shouting, to tell their people that the Gods had taken the gift, thus showing that they were still going to remain with them and help them.

Alone in the Temple, the three sat silent. At last, More Bear whispered.

"We did not understand them. It was a sacrifice to the Fire and not to us. The thing that we hated in our own people, human sacrifice to a Fire God, who, we learned, was not a God at all, has happened here, and, unless we do something to stop it, it will happen again and again. Once the Old Old Man told me to kill one who had wandered from the Path, and I did so, and watched his body as it was placed on the Altar of our old God in our Old Temple, and I knew then that it was an evil thing to kill. Since then I have never killed except to protect myself or feed myself with the meat of animals.

"We came here, because we were sick of the Path and wanted to find

a new way for men and women to live. And, even though these dark people were almost beasts, we thought we could teach them a new and a better way. We taught them part of what we knew; all they could learn. We saved them from the famine of winter and the terror of the other tribes, and this is the result! They love us; they fear us; they worship us; and because they want to show us how they feel, they bring us a young girl and kill her as a present to us. We were simple to think that they wanted me to mate with her.

"How could they think that I, as a God, would mate with one of their women?"

"We are but three, and they are many," cried Little Rabbit. "Tomorrow, or the day after, sometime they will bring another girl to burn on the altar: and there is only one way to save her, and you know the way."

"It is not a pleasant way, but you are right. They learn a thing slowly, but, once learned, they will not forget. We will take off our clothes and cover our bodies with mud, and we will sit in the open place of the city, and we will not eat or talk; thus, they will know their Gods are angry."

FOR three days the Gods did this, rising only to go into the Temple to attend to the fire. The dark ones brought the best of food, the finest skins; they sat around the three in a great circle and mourned in a low wailing chorus. On the fourth day the three went to the river, washed, put on their best skins, ate in the presence of all the people and went back to live in the Temple.

And all the tribe rejoiced, starting in with their usual work, and there was feasting and happiness in every hut.

The next day the five great men of the city came again, bringing with them another girl. She was the daughter of the Chief, his treasure, and worth much in his eyes. She was dressed in beautiful skins. Her hair was combed as Little Rabbit had taught the women to comb it, and around her head was a gold ring, brought from some far corner of the earth. Her body was not very hairy and she had been washed just as the people had seen their Gods wash.

The Chief made his talk. He knew why the Gods were angry with the people. It was because they had brought a common girl to give to them instead of the daughter of their Chief. Now, they were doing this. Would the three Gods take the gift?

Fire-Man and Little Rabbit looked at More Bear anxiously. How would he act? Was it to be another living sacrifice?

The hunter stood up. A great man by this time, almost as tall as the tallest of the dark ones. He cried to Little Rabbit to bring him a corn cake and a piece of dry meat. Then he went over to the six worshipers, and told the five men to sit down. He took off his tiger skin, and laid it on the ground. From the girl's shoulders he removed the deer skin and laid it on the ground and then he wrapped her in his tiger skin, and on his shoulders tied the deer skin. He took off her gold band and placed it on his head. He broke the corn cake and gave her half and told her to eat. He tore the meat, and told her to eat, and, as she ate, he ate. Then he took the girl over and had her sit by Little Rabbit.

It was the mating ceremony. He had often watched it. Now he turned to the five men.

"This is my woman!" he said. "The Gods accept your gift."

CHAPTER XXV

CHILDREN IN THE TEMPLE

WHEN the news of the event was spread through the tribe, there was great feasting. Life had been different for the dark ones since the three Gods came; yet, always there had been the lurking fear that some day the Gods would leave them. Now, that the best beloved one had taken the daughter of the Chief to be his woman, to mate with her, perhaps they would remain; perhaps they would never leave them. It was a wonderful thing to have happen.

The girl herself thought it wonderful. To be the woman of such a man, with such a beautiful white skin; to be the woman of a man who knew so much, who had come to them with that burning thing that was on the Altar; to mate with a God and bear children to him; why, it was just too wonderful to be true. She knew when she had been taken into the Temple that she was taken there to be a sacrifice, but, instead of death, a husband waited for her, and what a husband!

"It is not at all what I expected out of life," explained More Bear to Fire-Man and Little Rabbit, "but, perhaps, it is the best thing to do. We cannot go back to our people except by the path of war and killing. We shall have to live here till we take the last journey. So I will mate with this woman, and you, Little Rabbit, will have to teach her the ways of the women of the old race, and, perhaps, as the years pass, I shall be able to forget White Pigeon and the love I had for her. Perhaps this woman will live to comfort me, and bear my children, for all she knows is how to mate with a man and work for him. The things, such as painting pictures, making

books and mating carrier pigeons are arts that she cares nothing for."

"This is a good thing you did," commented Fire-Man. "What will you call her?"

"Her own name is Sun Head," was the hunter's answer, "because, of all the girls in the tribe, she alone had a golden band to wear on her head. So, even though she is dark, I will call her Sunshine, for there is a gleam to the ring she wears when the sun shines on it. She will live with us and care for Little Rabbit when she bears your child, Fire-Man, and soon she will have a child of her own, perhaps many, if she is like the other women of her race; and then we shall need a larger Temple, with more rooms in it. It may be that we shall live to see the children of our children rule this race. They will be half gods, but there will be no more killing, and, from now on, only fruit and grain will be brought to burn on the Altar."

More Bear's prophecy turned out to be true. In a month Little Rabbit gave birth to a daughter, but never again did she have a child. Sunshine presented her husband with a son every year for five years. They were all great, sturdy children, who were almost white, and had larger heads than the heads of the other children. During those five years there was peace, but the winters constantly grew colder. Other tribes of the dark ones drifted before the cold towards the hot lands, but the tribe of the White Gods simply built warmer huts and prepared more food for the winter time. Still, there was no fire except in the Temple, where the Gods and their families lived.

Ten more years passed, each with a colder winter and a drearier summer. Fire-Man's daughter was fifteen

years old. More Bear's youngest son was nine. The girl was little and frail, but the five boys were great, wonderful lads, with the sturdy body inherited from their mother and the keen intellect of their father.

And then came the great killing.

CHAPTER XXVI

THE GODS MOVE ON

PERHAPS it was the relentless cold; perhaps the wet, sunless summers. A new disease may have drifted on the bitter winds from the west. Whatever the cause, the dark people of the city began to die.

They died fast. So quickly did the pestilence pass from hut to hut, from family to family, that soon there were none left to take the dead out of the city. Death came to the Temple. First, Little Rabbit died, and then her daughter, and then Sunshine, and last of all Fire-Man, always frail, followed them. Spring came finally; the snow started to melt, and a few of the harder trees dared to start budding.

More Bear walked through the city that had been his home for so many years, and found that it was a city of the Dead. No one was left except his five sons and himself.

The boys followed him, wondering what it all meant. The oldest was almost a man, taller than his father, while the youngest was a sturdy lad, almost able to take care of himself under any circumstances. They walked through the city, found out the terrible truth and then went back to the Temple and to the fire. It was then that More Bear told his sons the decision he had made.

"We are going to leave here and return to my people. There is no use remaining here, for, if we do, we also

shall die some time soon. We will take food with us, and our weapons, and we will leave. I will take nothing else except the gold band your mother, Sunshine, wore the day-I mated with her. What the new Path will be I do not know, but I do know that we have come to the end of the old one. All I know I have tried to teach you. Except that you are darker and larger, you would pass for boys of the white race. You are my sons, and I am your father, and we will stay together on this new Path, no matter where it leads. I think that my old people have suffered from cold and hunger and have died, even as my new people died; so, we will go to the old Temple and see what has happened to them."

"Shall we cross the great river and see the dead city of the Lion Center and all the other wonderful things that you have told us of?" asked the oldest son, who had been called First Man the day of his birth by his proud father.

"We will. We will even go into the Temple. The last time I was there the Old Old Man was Cellar, my father's father. Perhaps he is dead now, and another Old Man sits in the gold chair I have talked to you about."

"A real gold chair?" asked the youngest boy.

"All gold. You know what gold is. I have told you that the head band that your mother wore was of gold metal. This chair the Ruler of my people sits in is of the same metal and nothing else. Hammered gold, because they do not know of iron, heated in the fire and shaped as I have taught you to shape it. We use fire as a servant, but they think it is a God."

"Tell us again about our Mother and how you mated with her," said one of the boys.

So the father told them about Sunshine, and how he had saved her from death, and how she had been a fine woman and a good mother to them, and they sorrowed as they heard the tale, for all of them loved her, because of the many things they remembered of her.

The next day they started on their long journey through a land that was dying from the cold. Each night they built a fire to warm themselves and cook their food and keep off the wild things, made desperate by the cold and hunger.

At last, they came to the Temple.

There were gathered the last of the White Ones.

Cellar, the Old Old Man, still lived on his gold chair. He was indeed an old man by this time, too old, he thought. In the Temple with him were five men, seven women and their children three, four boys, old enough to become men, and one woman who had never married. There was still some wood remaining of the great pile that used to be kept as food for the Fire God. There was still a little food. Around the Altar of the Fire God there was a little space of warm air. Beyond that, all was cold. It was May, but already the snow of another winter was beginning to fall.

Twenty-one people in the Temple. All that were left of a once great race.

More Bear, in the prime of his manhood, and his five sons walked into the Temple. When they saw the people there, they were filled with a great wonder, and a great pity.

The hunter walked up to the Old Old Man.

"I am your grandson, More Bear," he said, "and these are my sons. My people are all dead, and I have returned to the place of my beginning."

"You have come to die with us?" asked the Old Old Man.

"No, to teach you how to live. Here are just a handful of people, but there are children here, and men and women who should bear more children. What are you doing to save them? To keep them well and strong so that they can be like the lone pines and start a new forest, a new people?"

The Old Old Man looked at him and in that look there was doubt.

"Where have you been, More Bear? We have not seen or heard of you for many years. I heard words that told me you had not followed the Path."

"Those were true words. I found that the Path you taught me was false. I lived with a man, called Fire-Man, and, together, we learned that your Fire God was not God at all, but that he should be used as a servant for our people. We learned to use him to warm ourselves and to cook our food and to make our weapons and our tools. His breath we called steam and put it to work, grinding our grain. When your people took Fire-Man and were bringing him to the Temple to kill, I saved him, and, with his woman, Little Rabbit, we went beyond the great river. There we lived with the dark ones and built a city. We were Gods there, and the fire was just our slave.

"I mated there with a fine woman. These men I bring with me are my sons. Now, all my people are dead, and I have come back to this Temple to find only a few of all the race I knew of as a boy and young man.

"They are cold and sick, and they also will die if you do not save them. They need to be near the fire. They need food, cooked in it. If they have it, they may live. Give the order for them to come closer to the fire. Make it larger. I have meat with me, and I will

show you how to put it in the fire that you may eat it and live. You are the Old Old Man. Give the order and save your people!"

"I will give the order that you shall be killed," the Ruler said. "While I am the Old Old Man, no one shall boast of leaving the Path and live to boast again. Men of our race, kill this man, for he must die and burn on our God."

The five men moved, hesitated and stopped.

More Bear laughed.

"They know I am right and that you are wrong. The old Path is gone, and no one will follow it, because it was a wrong Path. Give the order and save your people!"

The Old Old Man stood up. In his hand was a stone knife.

"I will kill you myself!" he cried, and tottered forward.

More Bear made no effort to save himself, but his son, First Man, sprang forward, and, just in time, drove an iron tipped spear into the breast of the Old Old Man.

"I had to do it, Father," he shouted. "I did not want to do it, but I had to. You would have let him kill you."

"You did well. There was no other way."

He walked up to the gold chair and sat down in it.

"I am now the Old Old Man," he cried. "Obey my orders, or my sons will slay you as they slew the other. Bring wood and build a big fire. All of you come here and warm yourself by it. Those of you who can, bring more wood. I will show you how to put meat in the fire and how to bake your corn cakes. My sons will go and bring in fresh meat, so all may eat and live. This fire that you have so long worshiped will now be only your servant. It is not a God, but just some-

thing we can use and live by. Go and get earth and fill the cracks between the stones. Work, eat, keep warm. Bring those little children near the fire. Get their cold bodies warm. Feed them with this meat that I will show you how to cook. The Old Path is gone. The old Fire God is dead. I am the ruler, and I will save you if you but listen to me. Otherwise, you will all die. And you shall take this fire off the altar and build many little fires, so, that you can gather around them and live, because you will be warm."

They obeyed him. They took the meat and put it in the fire as he showed them, and, for the first time in their lives, they ate cooked meat. They put the corn cakes in the ashes and ate that, and, with warm food in their bodies and the glow of the many fires warming the Temple, a new hope came into their souls.

CHAPTER XXVII

THE NEW PATH

MORE BEAR decided that it was impossible to winter in the Temple; so, he led his people to the hot lands. He taught them how to make fire every night. But, as they fled before the cold, the winter followed them. At last they came to the end of the land, and, while it was warm there, with sun shining and flowers blooming, he did not feel safe.

"We could live here," he told his sons, "but, perhaps, only for a few years, and then we should die from the cold. We must go on. When we left the Temple, there were twenty of the White Ones with us. Now there are but ten, and seven of them are women and little ones. We must get to a warm country, where it will be warm always."

"But where can we go, Father?"

asked First Man. "For all sides of us have nothing but the water, and above us is the cold land that we came from."

"We will build a ship!" answered the hunter. "A ship is a house of wood that can travel on the water. Cut down trees and start making nails of iron as I have taught you. Start the women sewing furs together so that they may make things to catch the wind that will make the ship go. Have the little children gather nuts and grain and have one of the men kill deer and dry it over the fire. We will make pots of clay for holding water. When all is ready, we will get in this ship and go to a warm land. There we will start a new race, journeying on a new Path. Make everyone work. There is no time to be lost."

For a year everyone worked. At the end of that time the little band had a ship large enough for the few that still lived. It was a crude vessel, but a wonderful one, considering that no one who helped build it had ever seen such a ship before. Yet, it floated. It had a mast and one large sail, and, in the ship, there was room for all, and enough food to last several months.

When everything was ready, More Bear called the people together. There were just fifteen besides himself.

"Here is the new Path," he told them. "I and my sons are going to get in this ship and go over the water to find a place where it is warm so we can live. Of you, there are three men, and seven women and children. There is room for all, and I want you to come, but, if you do not want to do so, you shall stay here and live or die as you wish. I will not order anyone to come with us, but there is food enough and room enough for all. Come or stay as you wish, but I and my sons are going this afternoon."

Two men and their women refused to go, but asked that their children be taken. More Bear was willing to take them.

So, the passengers of the boat included the Ruler, his five sons, one man and his woman, three little children, all girls, and a middle-aged woman, who had never married; in all, twelve persons. Slowly, they pushed the boat out into the deep water and raised the sail, made of skins. The wind from the west caught it, filled it and started the boat towards the place of the rising sun.

More Bear stood at the end of the ship, holding the long oar, which served as a rudder. The others, except the children, started to prepare the evening meal.

The woman, who had never married, walked up to More Bear. In her left hand she carried a little basket, covered with skins.

More Bear looked at her, but did not speak.

"We are going a new way, More Bear," the woman said. "Now that we have started and the old life is past us, and is dead, as our old race is, will you speak to me?"

"I will, White Pigeon," he replied. "Years ago I would have mated with you, but you would not go on a new path. Now, we are on a long journey, and all that has happened in the past seems like a dream that has left nothing but memories. But one thing I would say. Years ago I loved you and wanted you for my woman, and during all the years I have never forgotten you, and I have never ceased to love you. Till now, I have not spoken to you, because I was minded to make you do the first of the talking."

"And now I have talked. I do not know where we are going or what land we shall come to, but I want to say

this. I have always loved you. I wanted you to carry me off with you the day that you rescued me from the Panther, but you said I should decide for myself, and no woman can do that when she is in love. So, I left you, because you would not force me to go with you. But, if you will have me now for your woman, I will be your wife for the little time we have left, and I shall be glad to be your wife, More Bear."

The hunter called to his son.

"First Man! Bring me the gold band your mother wore."

The young man brought it and More Bear put it on White Pigeon's head.

"From now on you are my woman, and I am going to call you Sunshine, for that is a good name for you, and

you will wear this gold head band, and when we come to a warm shore and start a new race, you will be the wife of the Ruler of that race, and what you say I will do, because I have always loved you." And he kissed her.

She seemed very happy as she stood beside him.

Suddenly he said to her.

"What have you in the basket?"

"Two of my best pigeons. I have cared for them tenderly for three years. They are a little old, but, when we have a chance, I think I can raise more. We will want carrier pigeons in the new land. Don't you think so, More Bear?"

"Certainly. We shall have to have pigeons," he replied with a smile.

THE END



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By GEORGE H. SCHEER, B. Sc., E. E.

We are carried far ahead into future ages and the life and views of the inhabitants and their battles are vividly told.

A STRANGE looking, bullet-shaped metal ship shrieked through the still, cold air. Prodigious velocities were common in this era, and had been for hundreds of thousands of years, but the occupants of the small scout cruiser were traveling at a dangerous rate even for the thin atmosphere; evidently they were escaping from some enemy whom they had outdistanced by taking such chances.

It was early in the afternoon, but the sun which shone was a weak and watery looking luminary with little radiant energy. The air was foggy and very quiet as it had been for countless ages. Rarely winds blew now to bring warmth from the tropical regions or cooling ocean breezes from the broad expanses of water. There were no tropics now, and many of the oceans were nearly frozen over. Even the contour of the continents had changed completely.

Erratic movements of the hurtling bullet indicated that something was amiss in the atomically driven ship, and, if it did not correct itself very soon, a forced landing would be necessary. The velocity of the ship was now but a fraction of its former rate, and it was rapidly decreasing as the craft was descending to a barren wasteland devoid of vegetation of any sort. It was apparent that nothing was wrong with the repulsive landing rays, for the ship slid down gently

without a jar. A port in the craft's side opened, and from it walked two individuals, individuals who bore little if any resemblance to the peoples who had once called this planet the earth.

They were brother and sister and named Tinc and Apho respectively. The boy was two years his sister's senior, and both were in their late 'teens. Little difference could be seen to distinguish them in sex, since they wore almost identical clothing, and it seemed both had an equal degree of femininity in their bearing and manners. Each was tall, at least proportionately so, since they were so very thin. Their heads were quite large and devoid of hair. The skin was very white and waxen so that the eyes appeared darker and more accentuated than they would have been otherwise. The noses were flat and had large nostrils, and below them was a small, thin-lipped mouth. The ears were large and the necks small.

Perhaps the most noticeable thing about these two beings was the size of the chests. They far surpassed the girth of the hips, and from the sides were emaciated, skinny arms ended with long slender fingers. The chests tapered rapidly to small waists, and, below the waists, apparently just able to support the bodies, were legs as frail looking as the arms. The feet were long and narrow like the hands. The dress of the two consisted of



The visor screen flashed for a moment, and she beheld the face of an old man with large brown eyes which had youth and imagination in them.

bright metallic woven tunics, trousers and gloves, while the feet and legs were encased in soft synthetic leather boots. About the waist of each was a leather belt with several instruments permanently attached and others, such as ray pistols, which could be quickly removed in cases of emergency. On the back of each was strapped an oxygen tank for high altitude flying.

The two beings quickly surveyed their surroundings, looked back anxiously in the direction from which they had just come, and then began working on the disabled ship. Their motions were slow and apparently painful. Physical work seemed to be ill fitted to these two creatures. Yet their lives depended on it now, and they were making a desperate effort to repair the trouble so they could continue their flight. Never a word did they speak, yet they were talking, conversing by means of transferred thought waves!

Speech had died out hundreds of millions of years before, even before the coming of the eighth ice age, and now they were entering the twentieth and last. The earth would never again be able to shake off the great chill which had descended from the polar caps. In preceding ice ages the warmth of the sun had been able to drive the sheets of ice back to the poles, but now the luminary was spent, exhausted. Slowly, inexorably the ice was creeping from each pole until some day it would meet at the equator! It would mean the end of life forever, and the time was not far distant.

After a short time the repair was nearing completion. The girl, Apho, showed visible signs of agitation and kept her eyes glued in the direction from which they had come. She ex-

pected to catch sight of their pursuers through the mist at any moment. Undoubtedly she would have been far less nervous about it, too, for the suspense was unnerving her.

"At last it is done!" thought Tinc to his sister.

"They are coming!" shouted Apho. She was using thought transmission, but in great excitement, most of the people fell back millions of years, and their mouths involuntarily formed rudimentary words, and the weak vocal chords did give out some squeaky noises which in no way resembled speech.

"What do you here?" questioned a powerful and foreign mind.

TINC and Apho had been so engrossed in watching the oncoming ships and replacing the hull plate, that they had forgotten all about their surroundings. Both wheeled at the question and beheld a score or more giant beasts which waved their antennae and gnashed their mandibles. To Tinc and Apho they were the dreaded and dangerous amtir, a type derived from the long extinct ants. These beasts had glistening and beautiful, black, horny armor and stood six feet high at the shoulder.

"I am Forfor, and we are exceedingly hungry. You will do for us!" said the leader as the whole horde moved quickly toward the boy and girl to take them.

The two humans did not dare to turn their backs in order to enter their ship. Almost involuntarily they whipped out their destructive ray pistols, and, with shaking hands, pressed the operating controls. By pairs and threes the formidable amtir crumpled up and fell to the sandy ground. More and more appeared over the low hill as the din of the battle

reached their sensitive antennae and thought waves flashed back and forth. Very seldom was it the good fortune of the amtir to feast upon human flesh.

This was indeed a strange battle, with animals of supposedly lower type talking to their adversaries through the medium of thought transfer. All animals which roamed the earth now had developed the powers of thought transmission. Perhaps it should be said that the popular conception was that animals were of a lower order, for it would never do for a man to admit that his intelligence was not the greatest! Scientists of the day maintained that most animals had always possessed this power to a much greater extent than humans, especially the amtir, and, because the human type was the last to make use of it, they were loath to admit that it had existed before. There was a common language now, or rather, no language, used instead of a medium of speech.

Nearer and nearer came the pursuing ships, as more and more amtir poured in to fill the gaps left by fallen warriors. Great worms were breaking through the surface of the ground to feast upon the dead bodies of fallen ants. These worms were eighteen inches in diameter, and several yards long. However, they were not dangerous, being merely scavengers. Although their minds were rudimentary, their thoughts were capable of projection as in all other animal types.

"Food! Food!" came their thoughts, mingled with the stronger ones of the amtir, "Kill! Kill!"

The numbers of the great worms were hindering the amtir in their attempted capture. Streams of formic acid were being squirted at the boy and girl as well as at worms. Tinc and Apho were against the hull of their

ship now, a few steps only from the open door. At the next opportunity they would jump inside and speed away. At that very moment a huge worm rose six feet in the air only a short distance before them and writhed about wildly as the formic acid burned it. This was a moment's protection, and the two jumped into the ship and were aloft in an instant.

The wailing thoughts of the disappointed amtir were strong in their minds as they applied neutralizing alkalines to their acid burned skins. Only a few miles behind them roared a whole patrol of enemy ships. The pursued ship was traveling like a bullet and had its thought-screen up to prevent escape of thoughts to the enemy.

By this time the sun had set, and a great undefinable gloom had settled over this portion of the earth. Even the stars seemed too weak to penetrate the foggy atmosphere. Approaching death seemed to possess all. In the distance faintly twinkled the myriads of lights of some city, and the tiny metal ship was speeding toward it, and from this ship flashed a warning to the city.

THE effect of the warning was immediately apparent as more lights flashed on and great battle cruisers, always ready and alert, rose majestically into the thin air and proceeded toward the source of the distress signals. The pursuers, only a few score in number, were not advancing now. They had hoped to capture the small craft before it could give the general alarm. Now they wheeled about in a great turn and proceeded to the place whence they had come. They were not in great haste, either, for they knew that their ships, while not as fast as the small one carrying

Tinc and Apho, were far speedier than the giant air warships of the city which carried tremendous armament. Their ships were scout cruisers and patrol ships, and they could not stand against the terrific ray bombardments of which superdreadnaughts were capable. The city had no scout cruisers, for they had no occasion to use them. Their necessity was a protective fleet to guard the metropolis.

When the ships proceeding ponderously from the city saw the retreat of the enemy patrol, they proceeded only as far as the little bullet to convoy it safely within the ion screen which completely walled and roofed the city. Quickly the little torpedo landed on a roof landing stage four thousand feet above the street level. This platform was on the roof of one of the city's tallest buildings. Immediately a group of waiting attendants helped them from the ship and escorted them to a lift shaft on a corner of the landing roof. Soon Tinc and Apho had descended to a level far below the roof and waited in an anteroom before being admitted to the council rooms. Their wait was not a long one, for an attendant soon bade them enter at once.

Within the vast shiny room with its innumerable highly polished metal furnishings and appointments they met first their mother, Vije, and their father, Zun, whom they greeted respectfully and without any manifestation of affection. Perhaps this was not so strange when it is considered that the earth was a dying world, and love and affection were dying with it, chilled gradually as the earth became cooler and cooler. Only room for serious thought remained.

The four advanced slowly toward a group of old men and women, who, for the most part, were seated com-

fortably in soft divans and lounging chairs in the most informal manner.

"We bring word of the Mongafs," began Tinc as his sister stood quietly at his side. "It appears that Zorr and Tuz are preparing for an expedition to attempt to wipe out the white race to judge from the number of battle cruisers being constructed. But there are battle cruisers alone, no other types of ships." The last remark was thought with the greatest of thought emphasis.

"When we were finally discovered hovering low over the Mongaf capital, the city patrol turned upon us, and we should not have had so narrow an escape had not the left hydrogen converter broken its quartz disc. This we repaired, but we were set upon by a large number of amtir. We escaped from them just in time to outdistance the Mongaf patrol ships which turned back after we had broadcast our alarm ahead to you. That is all."

"The amtir are becoming more ferocious day by day!" observed Vije, their mother.

Smiles of satisfaction were evident on the faces of the assembled dignitaries of state.

"Then the Mongafs are building no space ships?" came a thought question from a woman.

"They do not have sufficient intelligence," came the answer. "They no doubt recognize that sooner or later something must be done about the cooling of the earth, but they are depending on us to solve the riddle for them. We have solved the riddle, but our salvation does not include their own. Too long have they harassed us and kept us in a walled city to be rid of their molestations. They must perish with the other lower animal types. We have kept our secret well, and, by the time the invading fleet is pre-

pared to attack us, we shall not be here!"

BEFORE the hated Mongafs could complete and assemble a fleet large enough to be the match of that of the whites, the latter would be gone from the planet earth, gone from this cold and dying world.

Warm foods were placed before the two spies, Tinc and Apho, and they daintily partook of the synthetic stuffs, roughage and concentrated built-up vitamins. In spite of scientific advances in diet and all of the types of stimulation which had been developed, the life-giving rays of the sun could not be entirely replaced, and health was not what it had been scores of millions of years before. There just was not any substitute. True, there were no longer any bacterial diseases with extremely few exceptions, but bodies were frail and becoming more frail as decades passed.

After a short discussion of problems and affairs, the two flyers were excused and left the room to return to their own for a long rest after their great exertions of that adventuresome day. Seldom was such excitement given to anyone in these days, and, when it did come, the fragile bodies required long periods of rest and relaxation to overcome the toxic condition set up within them.

Tinc and Apho reached their sleeping room and reclined upon their couches. The room was plain satin-finished metal with indirect lighting and artificial ventilation, clean and dust-free. On the floor was a thin soft carpet. Everything was designed for simplicity, convenience and cleanliness.

Apho was of an extreme inquisitive type. Her brother was somewhat of the same nature, so the pair had been detailed as spies when such work was

necessary, and it appealed to them greatly. Whenever the girl had an opportunity to ask questions, she took advantage of it. The brunt of the interrogations was usually borne by Tinc who was practically always with her. Since they had no other brothers and sisters, by decree, there was a very close bond between them. Because the population had been reduced to the level which could just be supported and cared for, each married couple was permitted but two offspring, and the sex of the children was determined by diet, a fact partly discovered hundreds of millions of years before. Hence, if a married pair did not desire a boy and a girl, but rather two boys or two girls, another married pair would have two children of opposite sex by decree. There was enough difference of opinion so that difficulty never arose.

"Tinc, how long has the earth been like this?" the girl asked her brother in her mind.

"You mean just as it is today?"

"Yes. Has it always been so cold, so gruesome, so bloodthirsty?"

"Why, what do you mean?" questioned Tinc, a bit startled, as he raised up on one elbow and looked at his sister. "There is nothing wrong with the world, is there? True, we are leaving it in a short time because it will not much longer be able to support our type of life, but it is just as it has been for ages!"

"I mean farther back than that!"

"Oh, those old records are considered legendary. There is no means of preserving records over many millions of years since the changes nature works obliterate anything and everything."

"What are some of those legends, Tinc? I never tire of hearing of them, for somehow I feel that they are more

true than false," urged the girl, her eyes glistening in her pale, unhuman face in anticipation.

"I've told you so often I should think you would be tired of those highly fanciful stories! So much is based on conjecture. Of course, the beginning was a nebulous cloud and then the condensation of the nucleus, or sun, and then more, lesser condensations to form the twelve planets in this system, from some of which were hurled moons by centrifugal force. There must have been a long period while the orbits were being established, and a longer time until the planets congealed and cooled enough to permit adaptation of the single celled life-motes which are to this day being pushed about throughout the universe by light pressure. For billions of years these cells fell upon hot worlds and died, but finally they found conditions favorable and through evolutionary processes developed into all types, both plant and animal. This meant that life first became established on the coolest planets, and not necessarily the outermost ones. As these planets cooled, and life became extinct, but for few forms of low vegetable type, cells developed on planets which had formerly been too hot. In our own little system from Mars inward life would successively become extinct on Mars, the earth, Venus and would end with Mercury, the innermost. But as far as the human type is concerned, it will not happen, for nature can be thwarted artificially. Long before Mars became too cold, the Martians had discovered atomic power and its gradual release, and they had constructed spaceships. When life on Mars became too unpleasant, the Martians made their exodus to our own earth!"

"How long ago was that, Tinc?" interrupted Apho.

"Historians think about four hundred million years ago," thought Tinc in answer.

"How long has this earth been populated by men?"

"Almost a billion years, now," thought the boy, his manner showing his pride in his knowledge. "That is, by beings that had some of the same general characteristics and walked upright. They talked with their mouths then, and they did not have even atomic power. It is said that they actually burned things to develop what energy they required, but I cannot believe such a fanciful story. That would be far too primitive and too wasteful for any intelligent being to do. If he could be called a human type, he would have greater intelligence than to do that!"

Apho disregarded that last conceited remark and asked another thought question, "Did they have ships too?"

"It is said they flew ships of some description, but certainly unlike ours. In these so-called ships they were never sure of themselves, and they were insecure in storms, for in those past ages there was much wind and rain, not always snow and fog. Geologists say that human types lived much nearer the poles than we can even imagine. Now we live in a strip only eight hundred miles wide along the equator. The continents were differently shaped then too. Billions instead of millions of people lived on the earth," continued the boy.

"And other times you said the inhabitants then did not appear as we do?"

"No, they were really ugly! They had small heads, talked with their mouths, had small chests, heavy arms and legs, and even indulged in games of some sorts where physical prowess was considered the greatest of attributes. Just animal manifestations!

That is so long ago that no records could be considered at all reliable, and I, for one, do not believe a word of it! Man has always existed by superior intellect, and intellect alone!"

"They may have had diseases then and eaten meat of other animals and vegetables, and they may have played rough games, but they were a happy people, and they had a warm sun shining upon them!" countered the girl.

Tinc disdainfully ignored the argument and continued, "There has been a gradual decrease in temperature from the molten state, naturally, you silly girl! These creatures, who called themselves human, lived when strange trees and other vegetation grew in the belt we now live in. It was so warm, it is said, that ice never formed in this region, and the ocean and rivers were warm enough not to harm the human body! Nearer the poles, it was warm half the year and cold half the year. This ice sheet did not come many miles from the poles except nineteen times. This is the twentieth age of-ice and the last one, our scientists tell us."

"But men and women, though ugly, were strong then, were they not?"

"Sister, how many times must I tell you that physical strength is secondary to intellectual development? Who would rather be strong in body and weak in mind?"

"I would if I can be warm!" smiled Apho as she thought. "I should give up everything just for one breath of warmth, one glimpse of the paradise which must have been then. Tinc, haven't you ever wanted warmth out-of-doors, to see green on the ground? The trees did not look like our forest then!"

Apho was referring to a natural curiosity which was enclosed in glass and covered two acres of ground in

the heart of the metropolis. It was a forest of perhaps one hundred trees, some as tall as fifteen feet, mostly of pine and oak descent, scraggly, misshapen things which tried to exist by throwing out a few pale yellow leaves to the attenuated sunlight. These rarities, the only ones remaining on the planet, were nursed along with great care. Day and night ultraviolet generators bathed them and supplied just sufficient energy for the development of sufficient chlorophyll to maintain their lives. In addition, highly concentrated nitrogen foods, synthesized, were soaked into the soil about their roots every day, when water was apportioned to each of them. People gazed at them in wonder and shook their heads, curious as to why such things had existed in the dim past.

"Were the animals like the amtir and bees we have now?" asked Apho, seemingly without an end to questions.

"There were many more, and most were smaller. They lived in the forests which covered much of the land then. The amtir are supposedly derived from some little things which were tiny and quite harmless. I can't believe that such a change could take place, but so it is said. Bees were small then too. Why the human type did not change much in size has always made me wonder."

"Maybe humans then did not have to be afraid of bees and amtir, and could enjoy nature?" suggested the girl.

"I don't know that," and Tinc shook his head in annoyance. Any other person of this day would not have bothered to answer any of Apho's questions. Tinc, however, prided himself on his historical knowledge, and seldom if ever failed to do his best in answering his sister. But now he

was very tired and desired to rest quietly.

"Please go to sleep and leave me alone. Your mental pictures that you show me when you think of the past are nothing short of hallucination," he pleaded. "You are as tired as I am, and yet, you babble on for more legends! If you must hear them why don't you go and pay a visit to old Ogh?"

"I will do that!" replied Apho's mind, hurt. "He believes all of the tales and really makes them far more interesting than you do by reason of that fact, but thank you anyway!"

With that, both were quiet and soon fell into the sleep of exhaustion.

SOME hours later Vije and Zun entered their children's room and looked at them. Both felt great fondness for their offspring, and were it generally known, they would have been considered weak-minded degenerates, examples of atavism and undesirable in the community. But no one else knew, not even the children, for the two of them guarded their secret carefully. They almost reembodied a woman and a man of a billion years before, not in physical appearance, but in hopes, ambitions, desires, and love. As they watched the two sleeping children, now almost man and woman in years, the wife began thinking to her husband.

"How wonderful that our children will spend almost a full life on Venus! How they will enjoy the warmth, the green growing things, everything so different from this barren planet! The spaceships will be ready in two weeks now, and yet no one seems to be looking forward to the trip with joy. Everyone is so matter-of-fact about it all. But then, we are different. No wonder the race is dying, with no

hopes, no ideals to work for, just existing from day to day, month to month, age to age! Men and women, countless centuries ago, worked, and played, and loved!"

The father nodded. "It was different then. Tinc, here, pretends he is a man, and covers up any affections he may have. He must show off before his sister who is very much like us, and I know he is too, though he gives no manifestations of his feelings. And, believe me, Vije, more people than will admit it are looking forward with concealed joy and expectation to the exodus to our neighbor planet. Even the hundreds of millions of years in which the veneer of civilization has been applied cannot erase things which are still instinctive in mankind!"

The next morning dawned as practically every morning did. There were now no seasons upon the earth, though it did snow more in one half of the year than in the other half. The temperature seldom rose to the freezing point of water, and changes were very slight when there were any variations. Although there seemed to be a good deal of moisture in the thin atmosphere in the form of fog, little rain or snow fell. Half of the atmosphere had drifted off into space with the many millions of years that had passed, and, because it had left so very slowly, the animals had adapted themselves to the change through infinitesimally small differences from century to century through evolution. Ants had evolved to antir, ferocious beasts, meat eaters, taller than a man and capable of good thought transference. Bees were now a foot in length, and, while they did not attack men, they too were carnivorous, feeding on what few small rodents yet remained on the earth. These had changed little in shape or size, but

they did have larger lungs and heavier coats of fur. There were white bears, larger than even in prehistoric times, and seals and whales with many cold water fish. The seas which were not yet congealed with the eternal cold were alive with animal life, but the land had lost all of its vegetable life but lichens and a few types of mushrooms. On these the rodents fed. It was not at all unusual to see half a hundred polar bears and hundreds of amtir wandering about the walls of the city. The wall was a physical wall, but, in addition, an ion sheet, impenetrable, began at the ground level and rose miles into the air, curving inward to form, finally, a complete seal from all molestation from without. Below the surface of the ground were walls of fused rock and metal, carried down to bed rock. No amtir could hope to burrow through such a fortification.

"You are going my way this morning, Tinc," thought Apho. "I'll go with you and stop off and see Ogh, if you don't mind accompanying me that far."

"Surely, I'll go with you, only act as other people do, please!" answered Tinc in thought waves.

After the synthetic and unpalatable breakfast was finished, they started off together, through the chill calm air, and soon entered a subway tunnel. The distance was not very great, so they were walking, something a bit unusual even for the younger inhabitants. After a hundred steps, they made a turn in the smooth, metal-lined tunnel, and a steady drone came to their large ears. Another turn and they entered a vast gallery, the city's power supply station. Here, water was manufactured, electrical energy was transformed and light was evolved.

One would have been greatly aston-

ished at what he saw. Great centrifugal pumps were rotating at a tremendous rate, but there was no easily visible driving motor. However, it required millions of horsepower to pump the city's water alone, and it was being converted by what appeared to be an integral part of the bearing on each of the mechanisms! So great was the release of energy of the hydrogen converters, that their size was almost inconveniently small except for the very largest of power installations.

FOR many centuries, man had used atomic power in the form that it was being used here. Ages before, experiments in atomic power had been made, with disastrous results at first, but the world finally ran its industries on power derived from breaking down atoms. It was far superior to any other known method of obtaining large amounts of energy, but it fell far short of the present system of building up atoms, not destroying them.

The hydrogen atom, with a weight of 1.008 was combined with three others to make up a helium atom of atomic weight 4.000, with .032 released in the form of pure energy. The two superfluous electrons were forced from their orbits by extremely high velocity negative streams from external ray generators. In the final combination, two hydrogen atoms, and two atoms of hydrogen *minus* the electron, really protons in a sense, were combined to form the helium atom.

There was an attendant cosmic radiation which was heterodyned and reduced in frequency to light-energy, and this light-energy was carried through special quartz conductors for illuminating living quarters, streets and offices. The largest of the hydrogen converters were found on the generators which fed electrical energy all

over the city, over silver conductors. The generators themselves were run in liquid hydrogen to keep the internal resistance at a minimum to the tremendous currents flowing.

All of the ships had hydrogen converter drive, the energy being used to build up repellent rays which furnished the force necessary to drive them, using the earth as the mass against which the rays reacted. Then, there had been developed attractor rays which were the opposite of, and neutralized the repellent rays, disintegrator rays which broke down compounds and vaporized elements, and infra-red rays of inconceivable intensity. All could be used in combination with amazing effects in applications to work or as weapons. The last three were used as weapons, mainly as protection against the Mongafs and sometimes to ward off especially vigorous attacks of the amtir. Pistols carried by men and women contained no atomic hydrogen converters, but, instead, the rays had been stored in a highly absorbent compound, and pulling the trigger added a catalyst to cause a sudden release of the potential energy, the quantity depending on the amount of catalyst used. After the energy was exhausted, the catalyst was removed from the absorbent material and the latter was recharged with energy. If the weapon was not used, there was an unnoticeable decrease in energy content in a period of some weeks.

WITH the decrease of the population, the ever present danger from hostile Mongafs and vicious amtir, and the intellectual development, there was no longer a definite form of government, nor was there any private enterprise. What work was to be done physically was carried

out without effort by energy rays, and automatons had been developed to a degree that made necessary only general supervision. All of these changes had come about so slowly that no one was aware of the vast difference only a few hundreds of millions of years had wrought.

Both Tinc and Apho were thrilled whenever they passed through the power station of the whole city. They seldom thought about it to each other, but they were really awed at the millions of horsepower being converted or produced with very little noise, no smoke, no great radiated heat, and no trouble. Seldom did anything go amiss, but, when it did, because the converters were so simple, any of half a dozen stand-bys could be put into service immediately.

The pace of the couple was very slow, but Tinc and Apho eventually reached the other side, and the boy went on as Apho turned to her left and passed through another vast room which housed countless, intricate machines. This was a giant factory where finished products of all descriptions had their beginning and completion. Here the metals used were synthesized, built up from atoms of lower number or reduced from atoms of higher order. Common clay was the most used source of atoms, and it was being carried through tubes and distributed to a score of synthesizers.

It required great power to carry on the processes of transmutation, but one could not even imagine its flow through the giant silver shafts which formed a maze in the great room. Through each flowed liquid hydrogen as the medium to carry off the heat developed by the flow of the electrons in the Herculean currents being forced through the white metal. It was

the alchemists' dream fulfilled beyond the limits of imagination!

Incandescent metals ran like water into ingot molds. In this day of development, it was more simple to transmute to platinum and iridium than it was to extract iron from its ore, as it had been done in the dim past of human struggle and development.

Apho hesitated a few moments and watched the bright metals as they sputtered and bubbled in never-ending streams. From half a mile away came sounds of the processing of the metals, but her visit did not require that she pass that way now.

After a walk through a small side corridor, she came before a metal door on which she tapped lightly. The visor screen flashed for a moment, and she beheld the face of an old man with large brown eyes which had youth and imagination in them. At the same time, her identity was being established on the other side of the door. The screen darkened with the opening of the portal, and she entered the rooms of Ogh, historian and philosopher, one man who could reason without the fetters of the day and age holding back what he knew must be the truth.

"So Apho pays a visit to old Ogh," he beamed. "Make yourself comfortable, child, and let us have a long talk. I can see in your mind that you have come to me for more stories, stories of the past, and, let me whisper to you, that *was* a glorious past! Not lost altogether, however. Our astronomers tell us that we shall be carried back half a billion years when we reach Venus. Ah, there is a planet for you! Covered with vegetation, warm, with rivers and mountains, and so much usable land. The skies will be bright if still a bit over laden with moisture. We shall have air to breathe

again, warmth and freedom. There are no amtir there, and we shall see that there will be no Mongafs either! There probably are men and women, though, such as we were in the ages past, because the same spores were carried by light pressure to Venus as they were to all of the planets of this system, and evolution probably has developed true to type since that planet is much like the earth which we shall soon leave as a home planet. It is only 67,000,000 miles from the sun, and we shall have no gravitational trouble since it is only three hundred miles less in diameter than our own earth, hardly anything in percentage of the total, you see."

"I want to know more about the past," thought Apho, her eyes already wide in anticipation of what was to come. She could spend endless breathless hours with this old man, for she never tired of his tales.

"Ah, yes, the past," and, for a moment, his eyes were veiled in unreadable thought. Then he began. "I am going to tell you the true story of our development, Apho. As far back as we care to go, perhaps six or seven hundred millions of years ago, the earth was indeed a green carpet. Things grew, in what were called fields, for people to eat. Ships sailed on the oceans, not over them, and carbon was burned to derive energy to form water vapor which, in turn, in expanding gave mechanical energy. This, in turn, gave electrical energy, heat, light and all other forms. It was wasteful, but carbon was plentiful and it did the people for millions of years.

"Men and women were strong and healthy. They had hair on their heads, had smaller chests, because there was much more air and oxygen then, and their arms and legs were firm and

shapely. Indeed, they were so imbued with health and vigor that they indulged in all sorts of physical exercise for the joy of being able to do it and develop their strength!

"There were various groups of people who lived under one form of government in one section, and others, probably of the same race extraction, in another. These were countries as they were called then, and, if one group did anything another country or countries did not like, they had a war, some agreeing with one group and helping, and *vice versa*. Wars, though crude, were destructive then. They used explosives and poisonous gases instead of rays, but, in a year's time, they could easily wipe out ten million lives, which, by the way, is more than the earth's entire human population now.

"Mars, inhabited by much the same type, older by millions upon millions of years, however, became barren, and the population did as we are about to do, migrated to the next innermost planet. The population had dwindled to only a few million, and the trip was made in four hundred giant spaceships, propelled solely by the reaction of rockets. Some ships were lost and became satellites of the sun and of the moon, but nearly all of them landed safely on the earth.

"They landed and settled on the most intellectually advanced continent, fortunately for everyone concerned. In no time at all they had given their secrets to these earthmen in return for a new home. After a million years had passed, perhaps, it would have been difficult to have distinguished anyone from another in the matter of descent, for the type was now the same because of common intermarriage. I should say 'common' only with what were known as the

'whites'. There had always been racial difficulties, for, you know, there were a great number of yellow men and many blacks. It is said, too, that there were other skin colors, but I cannot say definitely. If there were, they were in too small numbers to have any marked effect on the final racial tendencies. Bloody wars were waged between the whites and blacks and yellows. Naturally, with the whites fighting both of the other races, there was bound to be an alliance for a common cause between the black men and the yellow men.

"When atomic power came, developed through destruction of matter to lower atomic weights, the wars between the blacks and yellows combined against the whites were too terrible to relate or even imagine. In five years the population of the earth had been halved, in ten years it had been halved again. It was very evident that such warfare could not continue indefinitely or the population of the earth would soon be reduced to a negligible number.

"Nature took a hand in her own way, and fighting was stopped of necessity, since a new enemy, common to all, had developed and threatened a sudden end to all living intelligent creatures. Insect pests had multiplied, unhindered for many years, and there were so many countless numbers of them that they blotted the light of the sun for hours at a time as they flew and hopped and buzzed to new and better forage grounds. Their numbers were so utterly inconceivable, and they covered so much of the area of the earth's surface, that it was difficult to use poisonous gases to kill them off. But, by one means or another, they were gradually eliminated but never reduced to what they had been a few

years before. Man had neglected to rid the earth of pests when he could, and from that time on, one might say that insects rule the world! They drove men back year after year. The results you can see for yourself. We have been forced into a walled city with myriads of amtir without our walls, savage descendants of what were, at one time, insignificant pests. Probably some far-sighted men realized then that insects would become the masters of the earth's surface. We are comparatively safe, but the earth is not ours by any means!

"To continue. The wars which had been carried on so severely were broken off permanently except for more or less minor outbreaks, though the feeling of hatred continued down to the present age. We sincerely hope that we shall not be followed to Venus by the Mongafs. They do not have the mechanical developments which we possess, but it is not outside the realms of possibility that they might find some way to steal our great secret. That is why our space-fleet is being built under ground and in greatest secrecy. When we are ready to leave this old, cold earth permanently, square miles of false surface, which resembles that of our earth, will be disintegrated and the fleet will leave hurriedly where none else can follow. It is a risk to depend on a fleet which will not have been tried out and tested, but sufficient tests can be made before the voyage to make us reasonably certain of the success of the great exodus. Behind us will remain only enemies, the barren earth, hostile and hating Mongafs, ferocious amtir and the like. We shall be free to begin over again, and, it is my hope that coming generations will again assume the appearances of men who lived millions of years ago. The

heavier atmosphere will cause a slow decrease in chest expansion, and the heat of the closer sun will cause hair to grow once more as a natural protection. Warmth will cause a greater love of the out-of-doors and nature, and men will once more delight in physical endeavor. Evolution will carry us back millions of years, but, in carrying us back, it will be carrying us on as well, for we have the misconception that we have been continually advancing. Mechanically yes, but I do not consider it advancement when it does not embody all phases. We have degenerated physically and spiritually, and therefore we have gained nothing from our great mechanical strides! Apho, you must never tell a single being of how I talk to you, or I should not be permitted any visitors, and I might even be left behind when the exodus is made!"

"Oh, you can see in my mind, Ogh, that I would not tell anyone! I enjoy your stories too much to spoil everything," the girl answered in thought, and Ogh could read that his secrets would never be transmitted, knew it more surely than any verbal oath had insured ages before, for here there could be no hiding of the truth as long as the mind was held open to scrutiny.

"Before you go, child, let us look at the vast heavens and see what lies in store for us!"

BOTH rose slowly and walked into a second room which was always kept in darkness. The clicking of a few switches brought a large screen into brilliance, and, under the direction of Ogh's practiced and nimble fingers, a super-telescope brought distant objects rushing toward them.

"See, here we have one of the

ancient Martian ships, which is now a satellite of the earth, such as the cold moon is."

The ship increased tremendously in size until the two of them could clearly see the holes in the strong hull, holes from hurtling meteors having struck this unnatural object in the heavens.

"Now let us have a look at extinct Mars, Apho," and a tiny spot of reddish reflected light grew until it filled the screen, rushing toward the old man and the young woman as the amplification was gradually increased. Soon the surface markings were plain, and finally the evidences of the old canals, fallen to ruin and decay, could be seen clearly. Erosion on the surface of the planet was practically non-existent, and the scene before them on the screen had remained unchanged for millions upon millions of years, except for tiny pockmarks added by myriads of small celestial bodies which had buried themselves in the lifeless sands of the deserts.

"We shall not see very much of Venus, but we shall try with the aid of the infra-red penetrator to make out some detail," continued the old man.

Soon this new planet of hope was rushing toward Ogh and the girl. Both felt a thrill as the swirling moisture clouds could be seen distinctly as a blanket about this new home. The infra-red attachment, with its oscillator system, which heterodyned the frequencies back into visible wavelengths, permitted them entrance within the thick blanket, and, though not very distinctly, they were able to make out large continents of land, densely covered, and steaming seas and rivers.

"Thank you so much, Ogh," thought the girl to her host at length. "I must go now, but I shall be back for more

stories, if I do not bore you too much?"

"My dear, it is a pleasure to be able to show the truth to one eager to know the truth. Bigotry has become a menace to our civilization, but, though we shall not live to see it, there will be a gigantic metamorphosis in the new world, and everything I have predicted from logic will come to pass. Do not hesitate to come here where I can but attempt to paint pictures to you, pictures of the past and of the future. You are eager and you believe. Remember, at the lowest level I have some volumes a hundred thousand years old, and, if you and Tinc should like to page through them, these precious treasures of mine, you certainly may! The writers of those days were able to go back to still more ancient records and include much material which makes these books the very best history we have. In it you will find many things I have not been able to tell you, but, you may read with your own eyes and know for yourselves this past history."

"I know that we shall partake of your generous offer very soon, Ogh, and thank you again for your tolerance and kindness!" With those thoughts, Apho left the suite of this man so old, and yet so young. Her mind was a turmoil of conflicting thoughts, mostly of the coming exodus to Venus. She was young, and she would enjoy this tremendous adventure in the extreme. Slowly she retraced her steps to her own rooms, seeing nothing with her eyes, which were looking only into the far distant past and the immediate future. What a pity that she did not have a body, healthy and strong, and worthy of such a mind! Perhaps her descendants, hundreds of thousands of years hence would be beautiful to look upon, and would think back of what their

ancestors had been like. Evolution, change, would have worked once more for the benefit of humanity. Much artificial veneer must be cast off and away if man was to survive and thrive again.

AFTER three more nights, Tinc and Apho journeyed far under the city to the greatest secret man had ever held, into the vast galleries, covered only by a few feet of earth and masonry above. In these workshops were a thousand ships of such size that when one stood at the bow of one of them, the stern was lost in the haze of the distance. Many years of work were represented here, the work of thousands of minds and the physical work of tens of thousands of robots and automatons, working tirelessly, as their controlling and guiding minds were changed every four hours, night and day, month after month. These mechanical workers were overhauled every six months to keep them in perfect working order, and, since a few were repaired every day, the work went on practically continuously as it had for many years. The thousand ships were receiving their final touches before the great exodus to a new and living planet. Only once before in the history of these planets of which the earth was one, had a mass flight through space been conceived and carried out. This would be the second. Perhaps, in the dim future, another would take place to Mercury, the tiny planet nearest the sun, but, when the sun had cooled to the extent making necessary another move of intelligent beings, its state of equilibrium would be very unstable, and the most likely space voyage would be to another solar system with a newer radiator as the source of life-giving energy. When

the old sun disrupted in its unstable state, no planets could hope to escape this last spasm of death.

The giant metal-coated ships were as black as night in color, and not shiny. Every bit of heat which could be absorbed by the dead outer surface would be used to advantage within and would save that much energy expenditure. There would be a large quantity necessary in addition, of course, but most of the power plants would furnish energy for repellent rays which would drive the craft from the earth and to their destination.

Perhaps the Mongafs were suspicious of some sort of an undertaking being in progress. They tried every means to capture whites and read their minds, but very few had been captured, and these unfortunate individuals had died without divulging the greatest of secrets. Because it was evident to the Mongafs that these whites were withholding some vast project from them, they had redoubled their efforts and sometimes ventured over the city, but they could see nothing, and they were in peril of annihilation by the great protective beams within the walls. To the whites it was imperative that their rivals should not discover the secret. When the earth was opened and the ships soared upward on the journey, there must not be the hindrance of a battle. This would be a delay, and the vast armada would have only a few full-strength battle cruisers to offer it protection against the enemy hordes. The transports would be lightly armed, since all available space on board was to be utilized for passengers and stores. Several million people would find barely enough room in the thousand ships, but the journey would not be a long one in duration,

and comfort was therefore of minor consideration.

Apho openly made known her excitement and anticipation, and, though he showed none of her enthusiasm, Tinc felt just as she did. It would not be manly for him to admit that he felt any sentiment or excitement about the coming voyage.

THEY left the scene of great activity, each wrapped in his own thoughts, and returned to their rooms. On their way back, they passed few but robots and automatons. In this era it was difficult to distinguish some of the machine workers, for they were nearly all permanently installed in position and were not capable of locomotion. Yet they were as valuable, if not more valuable, than the metal men who moved about from place to place as their work demanded. Practically everything was automatic in operation and even in supervision. Robots supervised much, and, in turn, might be directed by other robots. However, in the beginning of the chain, a human mind controlled all. Because these mechanical beings are termed as being metal men and robots, it must not be gathered that any assumed, even vaguely, the human form in shape. All which possessed the power of locomotion were on wheels either on ground level or moving on overhead rails. Some were long and torpedo shaped; others square and box like. All were fitted with intricate mechanisms for performing perfectly, almost, the mechanical functions for which they were designed and built. All had thousands of light and heat sensitive cells which governed the most delicate of their performances and maneuvers. All of them derived their energy from collectors which picked up radiant energy transmitted

on special wave bands for none other than robot utilization. One could not even guess that these machines without feeling were not extremely interested in their work and intent on doing perfect work!

"Let us see Ogh again," suggested Apho the next morning. "He can tell us more about the planet to which we are going so soon!"

"Well, only if you promise not to talk about the legends of the past," warned Tinc in his thought transfer.

"They are not legends, brother. But I shall promise, if you feel so about them. I want to learn more about Venus. The past can always wait!"

Fifteen minutes later they were seated with the old man, and he was happily adding to their knowledge of the solar system, particularly of Venus, the second planet from the sun.

"This fair planet to which we are going is, peculiarly enough, almost the exact duplicate of the earth in size, as I have told Apho before this visit. The difference is only 257 miles in mean diameter in favor of the earth. The year on Venus is over half of ours, 225 days to be exact. She is 67,000,000 miles from the sun, taking the mean value, while we are roughly 93,000,000 miles from our luminary. In two weeks we shall be at our minimum distance from our neighbor, namely 26,000,000 miles. This is the ideal time for the passage, but our astronomers have calculated the time of starting to be several days in advance of the time of the shortest course. If we left at the time when the planets were closest each other, we should find our journey longer by the amount the separation had increased during the time required for the distance to be traversed.

"The innermost planet is Mercury, a little fellow only 36,000,000 miles

from our sun and too warm, even now, for habitation by beings like us, in spite of the cooling sun. He will be only 31,000,000 miles from us at the nearest approach, considerably farther than the earth is from Venus when closest, you see.

"Our sun, which has really caused us all of this trouble is still a giant source of radiant energy of wide frequency spectrum, though it has cooled materially since the solar system began. Some 8,000,000,000 years ago, long before the planets had been formed, the sun was more than a hundred times its present weight. When it was so young, it gave off its energy at a tremendous rate, matter furnishing all of it directly. As it shrank with this energy loss, it gave off less and less as its surface area decreased, and also its bulk. When men first walked upright on the earth, the sun was losing mass due to direct conversion into radiant energy, at a rate of 360,000,000,000 tons per day. This is an inconceivable weight, but it was nothing at all compared to the mass of the sun itself. Nevertheless, countless hundreds of millions of years have left their marks, and now the sun is noticeably smaller and colder. A reduction to half of its size would decrease its radiation and luminosity by eight times. It is a pity that we intercept such an infinitesimally small amount of the radiated energy thrown out by the sun. If this were not the case, there would be more than enough energy to do all of the planets for aeons to come. Of course, the sun has not been reduced to half its former size since life was planted in the solar system, but, with our great distance from the sun a small change is noticeable to us so many millions of miles away. The cooling is less and less in rate as it pro-

gresses so that we have perhaps a billion years left on Venus before any consideration of danger will be necessary. Long before then, I believe bodies will not be necessary for the existence of the mind. Mind will exist as an energy form, free of death and all physical fetters!"

Simultaneously all three were lost in thought. Even Tinc was carried away by the words and dreams of this old man who dared to say what he thought. Their thoughts were not shielded from each other, but they had ceased voluntary transfer and were thinking, day-dreaming, and their thoughts mingled with each other without direction. It would be difficult indeed to analyze such a complex thing as was taking place then. Were the thoughts combining in space or were they weaving about in the minds of each of the three?

AFTER much time had elapsed, all three went to the visor screen and studied this new planet-home intently. It did not seem possible that this muddy looking disk on the screen could be a planet which would and did sustain life, but minds practiced in making stellar and solar observations and measurements had satisfied themselves, and therefore it must be true. There was none to gainsay the findings and predictions. As in a daze, Apho gently touched the cold, inanimate patch of swirling light before her. It seemed so like a wild dream, but it would not be many days until she would never again be able to see the planet as she was seeing it now. Instead, she would see the barren earth, a pale bluish-green disk in the evening sky, if the clouds parted to permit vision. In years to come it would be a continuous sheet of ice with nothing to relieve or break

the monotony of the glare of the shiny sheath about the earth which had given life and death to countless generations of human ancestors. Under that cold sheath would be the remains of Mongafs, amtir and bees alike, impotent forever to cause trouble and anxiety to the white race.

"Let us see our own world and look at what we are about to leave forever," suggested Ogh. He reduced the amplification and swung the telescope very slowly over the horizon. Through the mists could be seen the rolling wastes all about the city, glowing dimly in the pale, feeble illumination of the sun's rays; gray sand and yellow sand with a few time-worn rocks all about. Here and there were amtir searching about for food, in depressions which once had guided nourishing rivers, or on the barren wastes of sand. A bee occasionally buzzed by, though the sound of the beating, transparent wings in the thin chill air could not be heard. To the south was the only hill within many miles. Here were many great rocks lying scattered about, the decayed remains of some great mountain, no doubt, but no one ever ventured out to look at them, and they, too, were lifeless except for the amtir which sometimes lay about absorbing what little heat they could from the weak sunshine. If only the three who gave the hill but a passing glance could have known what lay hidden behind those few blocks of granite!

A week later the boy and girl paid another visit to Ogh with the express purpose of going through the old historical books in a storeroom at the lowest level and at the far end of the walled city. It would not be long until these volumes would be stored on one of the spaceships to be taken on the

long voyage through the ether. Apho in particular was thrilled beyond words. Tinc was lost in a large volume dealing with geological formations. From time to time Apho interrupted her brother with a thought remark or asked for an interpretation, but, for the most part, the hours were spent without interruptions or pauses. Apho was reading a history of the probable descent of the human type on the earth long before the Martians ventured into space and landed on the earth as their new home, mingling with the whites. She was dreaming of what strong, healthy, beautiful bodies her ancestors a thousand times removed had possessed and wished that she might have been one of them, or else one who would live ten thousand years in the future on Venus.

Suddenly she looked up and listened intently for several minutes, hardly breathing.

"Tinc! What is that sound I hear? It is coming from within the earth!" she interrupted her brother.

Tinc looked up from his pages and listened for some time as Apho continued to listen. "I thought I heard it too," he replied with a thought. "It must be some subterranean river or a slight change within the earth. It cannot be anything serious, I am sure!"

WITH that, the boy went back to his reading. After a short while Apho did the same, but it was evident that she had not satisfied herself that the sound was trivial and unimportant in nature. Soon she too was lost in the vivid stories before her on the platinum leaves of the volume. Ogh himself found it necessary to descend to the vaults and to remind them that it was time for them to leave. They thanked him profusely and left, hav-

ing forgotten all about the strange sounds.

Time passed swiftly now, and everyone from child to centenarian was busy aiding in the last arrangements before the stupendous journey should begin. Everything necessary must be taken, and all superfluous parts and materials must be left behind to be destroyed when the spaceships had left the earth. No vestige could remain to aid the hated Mongaifs. They must die with the planet because they were unfit to be carried to a new world where they would continue to cause nothing but trouble and worry and continual strife. It was much better that they remain upon the world from which they had tried to eliminate the whites as far back as men and histories could remember. This would be a truly fitting reward for their barbarism and hatreds and selfishness. Had they lived in accord with the other great race, they should be included with them and treated as brothers, for color in itself was no line of demarcation.

The night, preceding the one set as the time for departure, had arrived. Zun and Vije, with their two offspring, Tinc and Apho, were partaking of the last full meal they would have on the old, worn-out earth. Apho was telling, with her dancing thought trains, of the interesting things she had read in the metal books of Ogh, and she was imagining, as only she could, the probable results in the change in environment and climate. In a flash she remembered the noise she had heard. As the flash came across her mind in memory, Zun was frozen for an instant, but immediately after, he arose with a start.

"Come, we must find out if the noise still persists, and we find the cause. There have been no indications

of earth tremors from the observatories nor are they any subterranean rivers near enough for you to hear in the vaults. Nothing must prevent our departure to-morrow!"

Zun summoned many men, and Tinc and Apho accompanied them to the lowest city levels and to the distant room at the south end of the tunnel. When they reached the vault in which the boy and girl had spent so many absorbing hours, they all stood quiet, breathless, listening intently.

"The noise is louder than when I heard it!" commented Apho, and Tinc now heard it without any difficulty whatsoever.

"To the battleships!" commanded an old man. "This can mean but one thing!"

Without another word all of the group hurried to the elevators, and a general alarm was sounded. Every battle-cruiser and scout cruiser was manned instantly, each with its complement of robots and men. Some had no men in them at all, but were directed from central, battle maneuver stations. One would have thought that a perfect battle formation was an everyday occurrence, but it had been a full decade since a full formation had been ordered. Everything had been in readiness, however, since the spaceships were nearing completion. Everything was governed almost automatically, so that little time and movement would have been wasted, had not everything been in perfect readiness.

SLOWLY and majestically the ships slipped through the screen which surrounded the city. It could be seen now as a misty shimmering veil, for its intensity had been multiplied a thousand times with the sounding of

the warning. The distance the ships traveled was only a few miles. Apho and Tinc were watching from a tower, which afforded them an almost perfect view of the city proper and the surrounding barren countryside. They saw the ships cautiously pass over the brow of the rocky little hill to the south.

Instantly there was a terrific attack by an unseen enemy sheltered behind the bluff. Protective screens on the whites' ships flared to bright colors, as bolt after bolt was hurled at them by the surprised and cornered foe. Almost at the instant of the attack the whites had loosed their tremendous rays of energy until soon the cold ground in the vicinity was becoming jelly-like, and little pools of molten lava stood in the depressions. Several of the trapped enemy ships rose into the air, either for a vantage point or to escape to the cities of the Mongafs.

"Mongaf ships!" thought Tinc in surprise. "Now I see it all. They were tunneling into our city and would have wiped us out before we could have been aware of their presence. Sister, you have saved the whole white world!"

Apho was too startled to think of anything coherently by the realization of what would have otherwise been. She was thrilled with the manifestations of titanic power before her. Never had she seen such a battle, nor one so close at hand. In a few moments more, the rays of the attackers grew less in number and intensity. Fifteen minutes after the battle had begun, the last vestige of Mongafs and their ships had disappeared. Hundreds of heavy, thundering metal robots followed up the tunnel that had been disintegrated under the hill and reduced the Mongafs and enemy robots into dust. This done, the fleet arose once

more and slowly wheeled and prepared to enter the protective screen of the city. When they reached its outer limit they hesitated for no reason which was immediately apparent.

"What is wrong?" questioned Apho of her brother.

"I do not know, sister," Tinc replied. "We shall see shortly, no doubt."

"I see lights in the distance, Tinc!"

"The whole Mongaf battle fleet has come to attack!" thought the paralyzed boy as his mouth worked convulsively and incoherent sounds came from his rudimentary vocal cords.

THE city was now aware of the coming attack. Ready lights were flashing from all of the stations within the ion wall on the towers of the city where giant ray projectors, unused for centuries, were being manned. Had anyone known of the presence of Tinc and Apho on the exposed tower, they would have been ordered within the building and under ground level immediately. Unknowingly, they were facing death by disintegration should a single beam enter the electronic wall and sweep near them! Their excitement was too great, and their anticipation overpowering, and they gave no heed to the danger.

The Mongaf fleet which was approaching was the greatest armada that had ever been seen by earthly eyes. Evidently it had been built for the express purpose of ridding the earth of the whites, and it looked, from a distance, as though it were fully capable of doing the job. What the Mongafs lacked in creative genius in the finer arts and sciences, they made up in the development of engines of destruction. They were no different from those possessed by the

whites, but they were far larger, as were the ships themselves.

As the fleet approached, it was quite evident that the hated enemy outnumbered the whites by a ratio of three to one, and all of the ships were greater in size and power. The operators and directory lacked nothing in skill either, for the formation was that of a great solid wedge of ships, with the heaviest of the battle cruisers at the nose or point. This deadly mass of potential destruction glided onward without a sound, but the propulsive forces were derived from the greatest energy source available, that of the building-up of atoms.

Meanwhile the white fleet made no pretense of being annihilated, and quickly split into two divisions and closed in behind the attackers, the only recourse left to them. Straight for the ion wall came the billions of tons of dense metal, heavily protected with ray screens more effective protection than yards of toughest alloy steel could have been. There was now no question whatsoever as to the city being the goal of the approaching black fleet. Brighter and brighter grew the ion screen walling in the buildings.

Now a great energy beam reached out from all of the black ships on the front side of the wedge. The beam deepened in intensity until it became a shimmering opaque sheet, so great was the radiated power. The thin air was instantly disintegrated and a continuous roar of thunder shook the very ground as more air rushed in to fill the vacuum left by the beams. The focus of these terrible rays was the ion wall before the oncoming fleet, the city's protection. At this point the screen had become intensely dazzling, blinding in brightness, as horrible, but beautiful streamers soared like mil-

lions of rockets for miles into the dark sky. The illumination created by the dissipation of the gigantic forces was many times the brilliance of the sun. In vain the white fleet harassed the van of the Mongafs.

IT seemed the protective screen of the city could not hold out much longer as the attackers were within only a few hundred yards. It actually bulged in like a flexible thing. Except at the very point of attack, the screen was so attenuated that it could not be seen with the naked eye. The greatest energy was automatically dissipated at the point or points of greatest stress. The fleet of the enemy had become stationary now, and it bombarded the wall with combined beams. The white fleet had encircled the Mongafs and was making itself felt often. With all of the energy being used in an attempt to break down the ion wall, little was left for the protective ray screens of the ships themselves. When several of the white ships were able to combine their beams at one point, the screen of the ship would break down, and in a moment, the sides became red, then dazzling white, and great pieces of molten, sparking metal dripped off to the earth below. In another moment the ship would fall, annihilated.

But there were so many black ships that, before enough harm could be done in this fashion, the city's screen would be opened and the whites completely wiped out. The buildings were shaking and trembling as the earth shook from the tremendous vibration and thundering of the neutralization of two almost irresistible forces. Rain was falling in torrents as protons combined with electrons to form water. This rain was scalding hot, but none was unshielded in this battle. At

times the vision of Tinc and Apho was entirely obliterated by the beating of the steaming water against the thick windows of the tall tower.

Suddenly the Mongaf formation changed and broke into three sections, one remaining to concentrate its powerful rays on the same spot, while the other two rushed to opposite sides of the city to attempt to break down the resisting screen by three points of concentration. Luckily, the response of the screen was instantaneous, and the energy supplied to it was necessarily no greater than if it had all been expended in one spot as it had been under the mass attack. It was a foolish move from one aspect because now the whites were at less disadvantage than they had been with all of the enemy ships in one solid formation.

Then Tinc and Apho were startled to see the portion of the fleet which had remained at the original point of attack, back off for several miles, still applying their beams at the same point. The screen was still brilliant, but, with the beams attenuated by the distance now separating the source and the screen, it was in no danger, and it was hardly opaque as it had been for so long a period of time. What ruse was this? The answer came immediately as the bullet-shaped formation hurtled along at full power and made for the screen, hoping to break through it with the tremendous kinetic energy they would have built up under maximum acceleration. When they reached and struck the wall, buildings cracked under the strain of the impact, and everything became blurred before the eyes of the two onlookers. The ships were not halted by the screen this time. The screen bulged in for many yards, and the two children thought that they were seeing their last on the earth.

The inward bulge had stopped growing in size, and the ships were at a standstill, shaking under their tremendous driving power. Great as it had been, it had not been sufficient to break through. Slowly, ever so slowly, the defeated battle cruisers were forced back until there was no longer any bulge in the protective ion screen. Fortunately there could not be very many such attacks because energy was expended at such a rate by the ships that the supply of material would be completely exhausted.

Nothing daunted, the other two units backed away from the wall and accelerated toward it from diametrically opposite directions. This time Tinc and Apho were thrown to the floor as the two bullet formations crashed into the electronic screen. The bulges were dangerously large this time, and very nearly met in the middle over the center of the city. Fortunately the tower on which Tinc and Apho were situated was to one side, for where the screen was pushed in, the buildings which did protrude out of the distorted screen were decomposed into gases almost instantly. The trembling and rocking of the ground this time was nauseating, and not due entirely to the reaction of the screen to the terrific impact. Much of it was due to the groaning hydrogen converters in the power stations feeding the screen. Capable as they were, and with additional units paralleled to those ordinarily intended for protective service, there was a great danger of destruction when they supplied such tremendous overloads, never dreamed of when they were designed and installed. The energy radiated mounted so high that the figure could not even be guessed at!

For a seemingly long period the two bulges all but met. Then they sep-

arated gradually, and the warped screen forced the adversaries back from over the panic-stricken city. The whites had been saved, for none of the ships could hope to survive if such amounts of energy were again expended in another attempt such as the two already made, ending in failure.

WITH awakened and renewed vigor, the stunned white fleet went back into the fray actively. Now it was ship to ship, since the Mongafs had abandoned the hope that they could break through the ion fortress of the city. No material wall or fortification of any description could have withstood such an attack for more than a few moments. For the most part, now, there were no large formations, and practically all of the fighting had become ship to ship or pair of enemies to one white ship. Had it not been that the exhausting attack had been made on the electronic wall for so long a time, the white fleet would have been severely beaten in a very short time, but, as it was, the battle was now between evenly matched forces, everything considered.

Apho and Tinc, still sick and shaken, saw the graying of the sky in the east in spite of the brilliant flashes and streamers and coruscations which illuminated the landscape as far as the eye could see in any direction.

"We must go below!" thought Tinc. "We have seen the greatest of the battle, and I, for one, do not care to see more!"

Apho's thought reply was very feeble. Slowly and carefully they climbed down the long stairway, now cracked and dangerously broken from the miniature earthquakes caused by the vicious attacks. The pair were

really frightened now, realizing in what danger they had been, and both realized what anxiety they must have caused their parents as well as the others. Exhausted, they reached the lower ramps and found their parents in a state of near-collapse. Search had been made for them all over the city. The great space armada would be off to Venus, planet of promise, within an hour, and they would have been left behind as lost! All but two of the great ships, dead black transports, had been filled with their quota of passengers. Everything was in readiness for the great exodus out into space!

"But there are so many men on the battle cruisers!" thought Apho, ghastly pale and trembling at the thoughts.

Her father, Zun, smiled, "See!" he said to her in thought as he helped her to an illuminated visor screen within the ship.

Apho's fear left her as she saw what was taking place. Three or four of the white ships would manage to become closely grouped near the outside of the ion wall, and one would suddenly dart into the city through a temporary screen opening. Immediately all of the men within the ship would leave, and an equal number of robots took their places. The ship then slipped out and joined the fray once more, manned entirely by mechanical men who were controlled from within the ships of the now waiting space-armada. So quickly was the trick performed, and so unexpectedly, that, though some enemy beams did reach within the city and demolish parts of buildings, the gap never remained long enough for any real harm to be done. The city was not to be left standing when the voyage to Venus was under way, and little concern was felt. The trick did worry the Mongafs, but they never dreamed of the true

purpose, supposing that fresh crews of men were going abroad to add strength to the white forces.

THE last battleship had been emptied of living men. The sun was well up in the heavens, and the departure was at hand. The movements must be concise and timed to the very second. Nothing must go wrong in spite of the great disadvantage which now presented itself in the unexpected battle raging over their heads above the city. Everything was deathly quiet and anxious within the ships, now that the time had come to make the attempt to escape. Perhaps it was well that there was excitement of an unexpected nature, since it took the minds of the whites from the perils they were about to face.

Robots were at the underground controls which would put into operation disintegrator rays to remove the earth and falsework which separated the fleet from the outside.

The signal was given, and the earth and masonry disappeared from overhead as if by magic. With one great surge the fleet rose in one plane into the hot air outside. Instantly the ion screen about the city was broken down, never to be raised again, for there would be no need for it in the future! The Mongafs were taken completely by surprise, but they recovered soon enough and made for the armada almost involuntarily, pursued, in turn, by the robot-manned battle cruisers of the whites who could do little to stop the sudden advance. The transports had gone miles into the heavens before the Mongafs approached dangerously near. Then came a startling thing. One by one the Mongaf ships came to a slow stop and retreated back to the earth! Tinc and Apho, watching the visor screen

wondered why they had given up the battle so easily when they might have prevented the escape of the whites who now lacked armor and armaments capable of matching those of the enemy battleships.

The Mongafs, terrible fighters, were not the scientists the whites were. The end of the Mongafs was at hand and inevitable now, all because of a very simple fact. The great transport ships, powered by stupendous propulsive units had sent their repellent rays out to the sun, and some of them were directed at the enemy ships which were using the earth as the mass for reaction of their driving rays. Once the transports had gone out of the range of the death-dealing rays of the enemy, they could utilize their power without hindrance, but they would have been annihilated at close quarters with the Mongafs.

Slowly but very surely the white ships, backed by the entire mass of the sun, were crushing the Mongaf ships back to the surface of the dead earth. They were now at such a distance that practically no armor was necessary as a defense against the pencils of beams which tried to reach out to them. The propulsive units of the battle cruisers were small compared with those of the gigantic white ships, and no match for them. Nearer and nearer the black ships of the enemy came to the ruins of the city below them. Finally one crashed to the ground and was flattened out beyond recognition. One by one, each of the enemy craft met the same fate. Slowly now, the great space armada of the whites traveled toward the surface of the earth. The few battle cruisers and scouts with the armada detached themselves and hovered over the great city and the gaping hole which had been the hidden work-

shop where the fleet had been built in secret. Disintegrator beams flashed out and seemingly leisurely melted the beautiful buildings to the ground, the lava almost filling the cavern near the center of the metropolis which had been the stronghold of the white race. The last remnants of the white civilization were being removed from the earth, and no traces would be left of the secrets of the great spaceships. By the time the Mongafs had recovered the unrelenting ice would have permanently covered the earth from pole to pole.

A great bubbling crater of incandescent lava now spread to the limits of the city, consuming every trace of the city. The job completed, the battle cruisers once more joined the main body of the fleet which had been supplemented by those robot-manned ships which had escaped injury during the battle of a short time before. With a great wheel, the armada was off to the other planet! No fears were felt for a safe arrival now, and great

was the relief after the anxious moments of a most threatening interruption.

Apho and Tinc were at a visor screen as the earth fast became a concave saucer below them. Under the powerful magnification they could quite clearly make out the details of the raw wound where the city had been, and the nearby landscape strewn with broken, flattened, twisted ships. They turned away as they beheld antir and bees feeding upon the bodies which once had manned the great invading fleet of the black Mongafs. They had made a great attempt which had come so close to being successful, by how small a margin no one would ever know.

The scene on the screen changed, and now the young man and woman looked with happy eyes upon a disk swirling with vapor, hiding the indefinite outlines of green continents, growing larger and nearer each second they rushed through space toward Venus!

THE END



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LISTERINE SHAVING CREAM

"On the Planet Fragment"

By NEIL R. JONES

Our readers will be very glad to hear more about the wonderful Jameson travellers with their invincible bodies, the beings still living after arms and legs have been pulled off.

Clement's Discovery In 1968

"YES, Dawson, it is a fact. I have found the proof. The assertion of Douglas Jameson was not a hoax. Come up into the observatory. Tonight, there will be a clear, cloudless sky. I shall prove to you the existence of the Jameson Satellite."

Clement, the astronomer, led the way down a long, dimly lit corridor leading from the comfortable library where he had just announced his startling discovery to his friend and layman, Dawson. Clement continued to talk as he led the way to the observatory.

"The satellite has been looked for occasionally by a few credulous astronomers since the story was brought out fourteen years ago. Since then no one has been able to find it, and the satellite was classified as a hoax. I, too, looked for it long ago but came to share the disbelief of the others. Last night, I stumbled upon it by merest chance while searching the sky for some of the larger meteors across whose path the earth is now commencing its periodic trip."

"Let's see," Dawson reminisced. "According to the story, this Douglas Jameson's uncle built himself a funeral rocket to be shot into space so his body might be preserved forever."

"Yes, and this nephew who told

the story several years afterward swore that he had been entrusted with the operations concerning the interment of his uncle's dead body in the space rocket and sending the rocket into space."

Dawson wondered to himself if this were true or had Clement merely sighted a meteor strangely shaped like the legendary satellite.

"The story this nephew told was rather a wild and creepy one, if I recollect it rightly," replied Dawson, "especially where he removed his uncle's body from its grave-vault on a winter's night."

"It was morbid and gruesome," Clement admitted, "but here we are; here's the telescope."

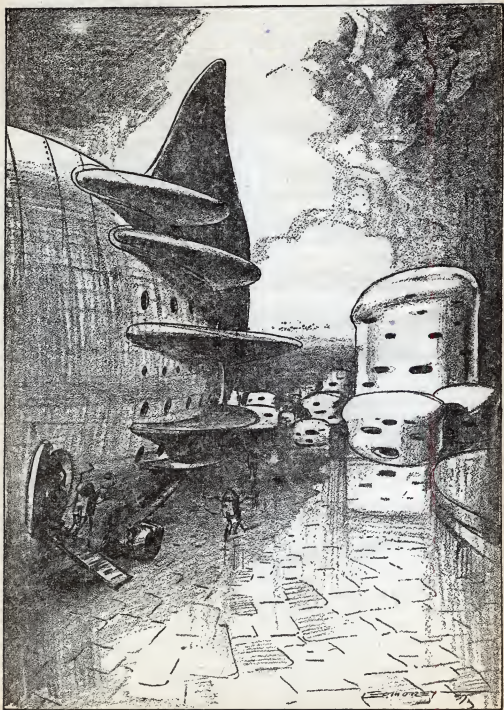
Like pygmies of Gulliver, the two men were dwarfed by the great instrument which passed through the roof of the observatory and leveled a searching eye into the starry depths of the cosmos.

"What proof did this young Jameson have?" queried Dawson as Clement carefully adjusted the mechanical detail of the giant lens.

"Only the empty grave-vault."

Clement ascended a winding, spiral stairway, made a slight adjustment to the governing mechanism; then he returned.

"You have seen the rocket satellite with your own eyes?" interrogated Dawson. "You are sure that it is no



The professor's attention became riveted upon the surrounding buildings. The houses, or huts, were crude in design, low and rambling.

meteoric mass revolving about the earth?"

"I am positive it is no meteor, and I am reasonably certain that it is the Jameson Satellite. The sky is cloudless, and if I can find what I saw last night I shall convince you, too. We'll have as good a night for seeing as can be expected for this time of the year."

Dawson sat on the revolving platform before the eyepiece, while his friend made further calculated adjustments. Before his gaze appeared several balls of light with several smaller ones dwindling away into infinitude. These were the larger and nearer stars of the universe. Farther away, sprinkled in brilliant profusion against the intense blackness surrounding them, were more distant stars, like a trail of luminous dust across the inconceivable eons of light years.

Suddenly, the entire sky swung into motion, whirling dizzily past in splendid review. The astronomer was moving the telescope's field of view across the heavens to a particular spot. The moving train of astral bodies slowed to a stop. Clement now searched the heavens himself.

"We shall have to wait a while," he said, "until the sunlight strikes the side of the rocket at a certain angle, and then we shall see it."

Clement saw only a few flaming stars which occupied the center of the disc into which he gazed searchingly. Other than a clouded effulgence of distant star trains, there was not so much as a suggestion of another object. But wait—a sudden dazzle of light sprang into being amid a dark pocket of space to one side of the flaming stars.

"Look, Dawson! Look to the right of that star nearest the top of the glass, and tell me what you see!"

"It appears to be another star, one farther off than the rest," Dawson replied.

"No," corrected Clement. "It is no star, and instead of being at a greater distance than those stars which are many light years away, this light you see is from a reflecting body a comparatively insignificant sixty-five thousand miles from the earth. It is the Jameson Satellite, and the reason we failed to see it before was due to the fact that its reflection of the sun's rays was eclipsed by the greater brilliance of that remote star. I shall bring the field of view up closer, and we shall be able to observe it more minutely. Watch!"

The stars and the smaller gleam of light within the circle of perspective changed position so that the latter occupied the center of view which narrowed under Clement's manipulation. Undisturbed by the low hum of the mechanism operating the great glass, Dawson watched the object before him gain rapidly in size until it nearly filled the horizontal diameter of the glass, shutting off from sight the scattered stardust behind it.

Dawson yielded his position to the astronomer who gazed into the instrument with a satisfied smile upon his face. He then rubbed his eyes vigorously with a knuckle, and was ready to stare into the telescope at the strange apparition, which had so abruptly stepped out of a fiction tale to confront him in such startling reality. Yes, he had seen right the first time. There was the rocket moving along on its endless journey, the sunlight reflected from its nickel-plated body.

Clement now set the great glass and the revolving platform into a motion which would correspond with

the movement of the rocket across the sky.

"You see that I was right, Dawson."

"Yes!"

"Tomorrow, I shall announce my discovery to the world. I have waited to chart its orbit, distance from the earth, its speed and rotation, if any. I also wanted someone else to see it and verify my discovery. Contrary to the expectations of Professor Jameson, the rocket projected itself a bit farther into space than he had expected, but perhaps that is on account of his underestimating the force of the radium propellant he used, or it may have resulted in an error in the calculation of the gravitational attraction of the earth's mass. Then, too, the moon might have been nearer to that section of the sky into which the projectile was shot than the professor had realized. His nephew claims that written instructions left him, which, later he destroyed, warned him not to send off the rocket while the moon lay in the southeastern part of the sky. The professor was evidently afraid that his rocket, set into motion towards the moon, might be captured by lunar gravity and be cast upon the dead satellite."

Dawson listened in awed contemplation. Clement continued.

"You will notice another queer fact. The rocket is not following its course with nose pointed ahead; it is revolving about the earth slightly tilted sideways. It probably assumed this position after reaching its maximum distance from the earth, or again it is possible that when the radium rays automatically played upon an approaching meteor in a temporary removal from the path of the cosmic wanderer, the rays in the head of the

rocket might have been stronger than those in the rear, throwing the head farther to one side. I wish that the professor had equipped the rocket with transparent sides, so that we might see into the interior and observe whether or not the coldness of space has had any visible effects upon him. I imagine that it has not, and never will, for I am willing on my part to endorse his theories as correct."

Dawson heard but little of Clement's discourse, and this as in a dream. He was gazing in deep meditation at the rocket satellite containing the body of Professor Jameson in its endless travel around the great ball of the rotating earth. There it pursued its lonesome way, a cosmic coffin. Would the satellite follow its orbit to the world's end, or would its source of radium activity fail upon some far-flung day of the distant future to convert the rocket into the prey of the first large meteor which chanced that way? Would it some day return to the earth as certain scientists claimed of the moon, or would it continue to extend its orbit gradually away from the earth and eventually free itself from the grip of the mighty planet, to either swing off into universal space beyond the solar system or else crash upon the moon's pitted surface? And when the rocket terminated its career, would the body of Professor Jameson be found perfectly preserved or merely a crumbled mound of dust? Dawson wondered.

Interlude

DAWSON'S wonder would have been considerably magnified had the space rocket's eventuality been foretold to him. Neither his imagination and wonder, nor that

of Professor Jameson either, could have conceived that forty million years later machine men of Zor were to pause in the shadow of the motionless, lifeless, untenanted world to examine the rocket contents. Zor was a planet of another far distant sun; the machine men with their metal cubicle bodies, four metal legs and six metal tentacles were creatures who had long ago found the secret of immortality by brain transposition into conical heads of metal equipped with a circle of mechanical eyes, one eye staring vertically from the apex of the head. Their mode of communication was mental telepathy.

The Zoromes removed the professor's brain from a perfectly preserved body and placed it in one of the machines. The interlude, timeless indeed to the professor, was over. He was a machine man, and as a machine man he embarked with his metal companions upon a life of adventure and exploration among the endless paths of the worlds in space. His adventures were already numerous. The latest discoveries had taken place in a system of planets two of which were twin worlds. Now, they had bridged many light years of distance and were already among the planets of another star.

CHAPTER I

HORRORS IN THE DARK

THERE it lay, slowly gyrating through space, ponderous and rough cut, jagged mountain peaks piercing far above the low-lying atmosphere into the endless abyss of space through which the planet plunged. This was the first impression the machine men of Zor had of

this strangely shaped world. From afar, they had recognized a departure from the general rotundity characteristic of the major cosmic bodies.

It might have resembled an elongated cube, had not one end been imperfect and receding, so nearly square were the angles of this strange world. Professor Jameson estimated the length of the immense body to be in the neighborhood of twenty-three thousand miles. As the space ship sped closer, and the planet turned upon an axis yet to be defined, the cubic illusion grew less, for the planet appeared more like a mighty stone slab, fourteen thousand miles across and four thousand miles thick. Not until the planet had turned slowly around were these figures available. Distantly, the great world had gleamed as an oblate spheroid, but up closer the softening curves induced by reflected sunlight yielded to squarer-cut reality.

To have said that it was a flat world would have been voicing no deviation from actual proportions. It was a flat world, its edges four thousand miles across. The atmosphere appeared unequally divided over the faceted surface. More air apparently enveloped the flat surfaces than covered the sides and ends, especially the ends which possessed but a thin, scanty layer. The imperfect end tapered gradually into two of the sides, the atmosphere following the surface in ever widening strata as it left the heavier gravity of the receding end. Gravity and density were the deciding factors. This was the machine men's opinion concerning the atmosphere. In quantity, the air was more or less equally divided.

"How might such a queer-shaped

world ever come to be?" 454ZQ2 ventured. "It is incredible that such a large, cosmic body should be found in this semblance."

"A reason for it exists somewhere," 744U-21 offered. "There are four other worlds to the system, and none of them are like this. All are spherical. And there is another mis-mated feature regarding this system. The other planets have no atmosphere."

"It would seem that this world we are approaching is foreign to the system," 6W-438 observed. "It may have come wandering through space ages ago and been captured by this star."

"The solution appears plausible," the professor agreed. "Yet even if we take for granted that it possessed an atmosphere when it reached this system, why does it possess such a queer shape?"

"A cosmic explosion somewhere far off in the universe may have sent it upon its journey," 41C-98 theorized. "The cause we may never know. At least, we can guess at it. As for atmosphere, we have found before that transformed worlds often generate their own during a passing phase of development or reconstruction. A new sun accounts for much."

The conjectures among the machine men were many.

"Two stars passing close to each other may have become wrenched asunder. This great fragment, perhaps, is one of the pieces."

"But the rotating, molten mass would assume a spherical shape."

"Not if the stars, or at least one of them, were cooled and dying."

"A giant planet may have exploded."

"A collision of worlds."

"The fragment cannot be originally from this system. It came from no one knows how far and brought its atmospheric constituents along."

"It seems the only planet of this group on which we might expect to find organisms."

The space ship described a semi-arc about the huge fragment, and another startling discovery was made. There was a moon, a rough, jagged specimen fifty-five thousand miles distant. The professor estimated its diameter to be less than nine hundred of his earthly units of measurement. Here again was the departure from the conventional, spherical form, yet strange as it might seem this little satellite conformed more to the shape of a globe than did its mighty companion. But the rough surface with its jagged spires and upflung escarpments was in accord with the general appearance of its huge contemporary, though it lacked the elongated contour.

AS the space ship sped downward to less than ten thousand miles over the sunlit surface, the Zoromes marvelled at the gigantic mountain ranges which reached up out of the atmosphere and into space. They were easily ten to fifteen times as high as any mountains Professor Jameson could recollect on his planet earth. Near their bases, yet miles above the planet's general surface, the mountains were capped with snow and ice, or at least with what the machine men took for such. Compositions and atmospheres often varied in substance and content, the machine men had long ago discovered in their travels from star to star, from world to world.

Where the sunlight struck their sides in the realm of the atmosphere,

the mountains were weathered and slightly softened in contour in contrast to the higher portions far above where unveiled sunlight struck dazzling and undiffused, the shadows sharp etched and as black as the surrounding space.

"If creatures of any kind do live there, how do they ever get across those mountains?" 119M-5 soliloquized moodily.

"They don't," stated 12W-62 positively, "unless they possess space ships."

"Space ships is right," said 744U-21. "Airships would do no good there."

"Perhaps they have space ships," 141L-14 suggested.

"Raise your anticipations as high as you will," 6W-438 broke in, "but we are scarcely close enough to discover if there are creatures upon this planet, not to mention creatures of the intelligence you have conjectured."

"It will be interesting," Professor Jameson stated, "to walk off the edge of the flat world and down its side."

Twice the space ship circled the huge fragment. They finally cruised low over one of the more sharply defined edges where massive mountains towered a few miles from the world's edge, planning to land here at least temporarily. But if the world's edge proved a lure, what they saw on closer inspection proved even more so. Midway between the mountains and the rim lay a city.

"It is inhabited!" cried 47X-09 from his position at a telescope.

Strange things moved about below them. It was a city, a vast assemblage of rambling, single-storied huts, both large and small. Towards the center of the city there rose several more elaborate pieces of architecture.

"The city is walled about!" 6W-438 discovered. "A very high wall surrounds it!"

20R-654 brought the ship rapidly downward, selecting an open spot not far from the central buildings as a landing place. The space ship came to rest, but where there had been a teeming city now rested silence and apparent desertion. Every one of the inhabitants had scurried out of sight. A vague mental unrest manifested itself to the keen perceptions of the Zoromes.

"They fear us," said 744U-21. "Be ready to act in case of a hostile demonstration."

"They do not seem to be far enough advanced to represent a menace to us," observed 8L-404.

"Not scientifically, perhaps," 744U-21 countered, "yet remember the ohhs—and then on the previous expedition the Emkls of the blue dimension on the planet of the double sun took frightful toll of our ranks. It has been clearly proved to us that various forms of animation possess natural offensives to which we are not wholly invulnerable."

"It might be best," the professor advised, "to preserve as friendly an attitude as possible until they overcome their fear. We must impress upon them mentally that we mean them no harm."

"What a high wall," marvelled 41C-98. "It is easily sixty feet high."

"And probably half as thick," added 29G-75. "Why do you suppose they built it?"

"A wall is usually meant to keep something inside or else outside. Being around a city, I should say that it is to keep out something."

"The something must be a colossus to require a wall as large as that one."

"Not necessarily. It may require special height to keep out a type of creature whose natural facilities enable them to jump high."

"Or the menace may carry means of climbing or otherwise elevating itself," 6W-438 reminded them. "744U-21's allusion to the Emkls on the planet of the double sun just put me in mind of the fuzzy stilt-walkers."

THE professor's attention became riveted upon the surrounding buildings. The houses, or huts, were crude in design, low and rambling. They were made of something resembling cement, and nowhere did they possess a corner, edge or sharp protuberance. Their general appearance was either oblong, spherical or mushroom, and none of them rose to more than twenty feet in height. The apertures were strangest of all. They were oblate, running horizontally in haphazard order. Each domicile possessed three or more of these means of entrance and exit. The average dimensions of these openings was three feet long by one foot wide, giving the machine men a rough perception as to the size of the inhabitants.

Many of the apertures were closed on the inside with shutters. Several of them were open, and from time to time the professor caught furtive glances turned momentarily in the direction of the space ship. The larger buildings were more massive and seemed built of a varying grade of cement, different in shade and texture from that of the more humble habitations clustered below and stretching away on every side to meet the towering walls. Professor Jameson saw that these larger buildings were more perfectly done, and the weathering on their rough sides sug-

gested that they were much older than the lesser buildings about their base. They were more inclined to square proportions, too, although here the corners and sides were rounded and there was the usual lack of spires or other points. The openings were placed in orderly rows and were more uniform in size though of the same oblate shape as in the smaller houses.

Most of the machine men came out of their space ship and wandered about in the nearby vicinity, but were never out of sight of the ship and their comrades, nor did they attempt seeking out the hidden inhabitants of the strange city. The mountains rose loftily out of sight to one side of the city, their base fringed with vegetation, snow taking its place farther up, while into space they towered gaunt and snowclad. To the other side of the city, a verdured plain swept away for several miles to end at what looked like the shores of a calm, placid ocean. And indeed it was an ocean, but not of water. An ocean of atmosphere dropped away to a depth of four thousand miles. Looking straight away or overhead, the machine men knew that not more than thirty miles of air kept the massive fragment from being a lifeless world.

The machine men wondered about the city's inhabitants. Professor Jameson wondered moreover what it would be like to walk to the edge of the world and look off into the abyss beyond.

"Night will soon be upon us," said 744U-21, pointing up to the sunlit peaks and then waving a tentacle at the amber sun upon the horizon. "Tomorrow we may know more about the city and its inhabitants. If they do not overcome their fears by then, we

shall have to make overtures of friendship to them. It is probable that when morning comes, their timidity shall have been dispersed by our having made no hostile moves during the night. It is clear that they have cause to fear something, for the great wall testifies to that."

THE sun disappeared beyond the world's rim, and the unusually long duration of dusk surprised the machine men, for absolute night did not come until the sun had gone beyond the next rim and its rays no longer shone crosswise up into the square angle strata of atmosphere adjacent to the walled city. The long, drawn-out dusk finally yielded reluctantly to the night, and in the blackness occasional sounds apprised the cosmic wanderers that the city's inhabitants were prowling about under cover of darkness. In the clear, fiery starlight, the machine men now and then saw one of their dim, skulking forms. They never came close. A few times, queer, excited cries were uttered.

The night had grown long, when a weird, wailing bedlam arose from a distant quarter of the city. Dim, ghastly lights bobbed about uncertainly above the city in the direction of the tumult. The machine men saw globes of light sailing and darting about over the huts. The wailing lamentation grew in volume. In the yells, the Zoromes detected warning, fear, bewilderment and despair.

"Something is going on over there not in accordance with the usual city routine," said 6W-438. "We had better investigate."

The suggestion was acted upon, and a party of Zoromes left immediately for the area of tumult and pale brilliance. Running in the direction

of the light, they turned down a twisting, irregular avenue between groups of the small huts, breaking suddenly into direct view of the pulsing, changing radiance. The light emanated from the illuminated globes, which floated above the huts and darted against the apertures of the huts, most of these being closed.

The globes were animate. The professor recognized this at once. And from the walls emerging out of the nearer huts, he realized also that these lighted things were a feared enemy of the inmates. Closer examination of the flying creatures produced the startling discovery that they possessed no wings. Furthermore, their spherical contour was but the illusion of the surrounding brilliance they exuded. Their nucleus might have been globular, but that was more or less indeterminate because of the surrounding spines which grew in every direction, close set, giving them a diameter of a yard or more. A slight weaving motion of these spines caused the professor to alter his opinion. They were not spines; they were small tentacles. In fact, these numberless, slim tentacles were the only outward appearance of these creatures. How they maintained their flight was questionable.

MEANWHILE, the wailing from inside the huts was rudely punctuated by a startled shriek of agony, a maddening scream of terror and pain. Out of an aperture came one of the flying monsters dragging with it an equally monstrous creature a bit smaller than itself. For the first time, the machine men saw one of the city's inhabitants. Its body was somewhat like a solid wheel, a bewildering set of appendages circling the rim. Towards the center, their

bodies broadened slightly. Large optics, one on each side of the disc, were at present distended with terror, while the short appendages, hooked and clawed at their extremities, kicked and fought to tear loose from the curled tentacles which gripped so tightly.

Out of the hut's oblong windows rushed three more of the strange inhabitants, leaping up and setting upon the blazing terror in an attempt to free their helpless companion. With terror written upon their minds, the professor could not help but admire their bravery and fortitude in desperately trying to rescue their comrade from the clutches of the terror. This thought was uppermost in the metal encased heads of all the machine men, and they acted simultaneously as the disengaged monsters of the air raced down upon the howling creatures below them. One of the glowing spheres set its fiery tentacles upon 60M-64 and was promptly torn to shreds, the innumerable tentacles stripped from a tough, pulpy center, which was soon ripped to pieces in its own liquid welter.

Meanwhile, the rest of the machine men hurried to the aid of the Disci. The professor leaped upward off the ground and seized one of the shining things just as it slowly rose with a screaming, struggling victim. Bringing the luminous creature down, he found it necessary to tear the malign menace into lifeless sections before it would loose its quarry. There were scarcely a dozen of the things, yet in the confusion and their flying around there seemed more of them. They had immediately seized the luckless creatures who had emerged from the protection of their hut, and one of them was making good an escape, rising above the reach of the

machine men who leaped high but to no avail. The victim's despairing screams grew fainter, and the globe of light dwindled.

"If we only had the mechanical wings here!" 6W-438 lamented.

The machine men had killed several of the shining things which flew without wings. They had rescued all the inhabitants of the hut except the one which had been borne aloft out of their reach, and now the remaining raiders rose to join their escaping myrmidon and his quarry. The huts grew dim, and darkness replaced the strange brilliance of the fleeing globes.

The Zoromes illuminated the scene of recent conflict with their body lights, and as they did so the frightened and stupefied citizens scrambled inside their dwelling as if from some new horror.

"Shall we go back to the ship for our mechanical wings and pursue the shining things?" queried 53S-7, staring upward from the apex of his head at the tiny, disappearing points of light which continued their rise steadily upward.

"There is no use of it," the professor replied. "Let us wait until the dawning when we may perhaps gain the friendship of these Disci and learn more about this night's affair."

It was even as they had hoped. The dawning of a new day dispelled the horrors of the night before, and in the daylight which streamed up over the mountain tops and later down into the walled city as the sun rose higher, the citizens emerged in timorous curiosity, their fear still evident though partly restrained. In their minds, the machine men perceived a leaning towards trustfulness, and they fanned this spark into a warm glow of complete confidence

with mental reassurance and realization of their aid in the previous night.

Like concave discs, the city's inhabitants dropped from their strange entrances upon an endless row of appendages. Sometimes they walked with their bodies flat over the ground; then again their movement often characterized the rolling motion like that of a cartwheel. On each side of their disc, a large eye peered fearfully at the machine men who found them quite intelligent, although their city did not suggest any very large amount of culture or scientific attainment. They were soon persuaded to abandon their soft, smoothly-flowing sounds in trying to make themselves understood in answer to the unmistakable questions radiated upon their minds by the concentrated effort of the Zoromes. A bit hazy and disjointed were the replies, but the thoughts of the Disci, as the professor had immediately dubbed them for want of a better appellation of reference, were definable, and the Zoromes learned more about the shining things from out of the air, which information, however, was but little.

CHAPTER II

THE LAND OF EXHAUSTION

"THEY are the Eiuks!" the machine men were told, the descriptive sound issuing excitedly from one of the eight quivering mouths in the side of a Disc. "They always come by night—never by day!"

"And why not by day?"

"We do not know."

"Perhaps they come in the daytime but you cannot see them because their brilliance is not distinguishable by day," the professor suggested.

"No," the spokesman said, wagging his headless body oddly as he replied. "If they came by day, they would seize us and carry us off as they do by night."

"Evidently they are entirely nocturnal," 6W-438 remarked to his metal companions.

"The Oaos come by day as well as by night," one of the Disci ventured, "but they never harm us, and often they combat the Eiuks."

"Who are the Oaos?" the professor inquired.

"They look much like the Eiuks. They are spherical, but they have no arms. In the night they do not shine at all."

"They come by day?" 744U-21 queried. "That is strange. The Eiuks come at night only."

"Oaos come by day and night both," the machine men were reminded.

"Then what good is your high wall around the city if these things can fly and enter your city at will?" asked 6W-438.

"Oh, the wall is to keep us safe from a danger worse than the Eiuks. The Ooours from the Land of Exhaustion would kill and devour us and destroy our city if they could. They come and pound at our city wall until often it trembles, and we tremble too—in fear."

"Do the Ooours come by day or by night?"

"They come any time, but we are thankful that they do not come very often. It has been a long time since they have been here to the city of Ui. The Ooours vary in color and size, and their strength is tremendous. They fight among themselves a great deal, for violence and combat is their chief amusement."

"And they come from the Land of

Exhaustion? Why do you call it that? Where is it?"

"It is on the other side of the hill."

The Disc creature pointed in the direction of the world's edge much to the surprise of the machine men who thought his reference to a hill lay in the direction of the mountains.

"But there is no hill that way," 744U-21 remonstrated to the surrounding Disci. "The world drops off there."

Professor Jameson allowed himself a bit of inward amusement, a condition never experienced by his metal comrades.

"That is what they told Columbus," he remarked to 744U-21. "You see, these Disci have never seen their world from afar, always having lived upon it, and they are not aware that it has an edge. To them, the divide is but the crest of a hill. They can walk on either side, you know."

"Of course," 744U-21 agreed. "And the reason they describe the other side as the Land of Exhaustion is because of its greater gravitational attraction. Fourteen thousand miles is the dimensional diameter in the Land of Exhaustion, while here it is but four thousand miles."

The truth of 744U-21's assertions were proved by further questions asked of the Disci.

"We cannot walk very far beyond the crest of the hill," the machine men were told, "for we become terribly heavy and get out of breath. We have to lie down and rest often. If we go too far, we cannot get back, and we lie down and die."

ONE of the Disci gave a lurid account of his experience in the Land of Exhaustion. He had fallen

exhausted several times returning to his own side of the hill. He had gone too far. The last time he fell he could not rise, and though the top of the hill lay near at hand with relief and recovery beyond, he could not get up and make it, and finally he could not move. His body had grown numb and he was dying when companions from Ui coming to peer over the edge of the hill had rushed down and rescued him.

"It is little to be wondered at why the creatures who live in the Land of Exhaustion are so strong. It is well that you do have strong walls."

"And necessarily high, too. The monsters from the other side of the hill can leap to amazing heights."

"Which is quite credible, too," 6W-438 observed.

"Tell us," urged 744U-21. "Do the Eiuks ever venture into the Land of Exhaustion?"

"Yes—they have, but such occasions are rare. When they did, they were unable to rise again. This, of course, was at night, for the Eiuks never come in the daytime. Our watchers peering over the hill watched them."

"Did they die of exhaustion?"

"No, and it proves that they are stronger than we, for as soon as daylight came they gathered their strength and rose up into the sky and out of sight, even as they do at night after having raided our city."

"Strange and inexplicable," mused Professor Jameson. "We must learn more about the Eiuks from first hand experience."

"What of the Oaos?" asked 744U-21. "Have they ever entered the Land of Exhaustion?"

"Yes, we have also seen them there. Once, they halted a charge of the Ooours against our city and

chased them far back into their own land. We watched from the hilltop after they had been put to rout."

"And the Oaos were not tired and could not rise?"

"We saw them, of course, in the daytime, but we have it handed down from our ancestors that the Oaos are stronger than the Eiuks and can rise out of the Land of Exhaustion any-time, either night or day."

"I fail to see where there is any difference in gravitation either by night or day," said 41C-98.

"The riddle is probably in the mode of flying employed by the Eiuks and the Oaos," the professor replied. "There are indeed many things to be explained here."

On asking where the Oaos and Eiuks lived, the Disci answered briefly with a significant gesture and upward rolling of large, staring eyes in the direction of the lofty, towering mountain peaks.

"Up there."

The Disci were curious about the machine men, and though failing to fully understand their mechanical construction and its relation to their organic brains, they quite surprised the machine men by somewhat grasping the explanations regarding the space ship and the existence of other worlds among the glittering stars. It was unusual for a species no further advanced than the Disci to understand, not to mention believing or being able to conceive of such things. This was but still another of the puzzles confronting the machine men of Zor upon the planet fragment.

They debated the question of whether they should rise on their mechanical wings and search among the mountains for the lair of the shining, tentacled Eiuks or wait for them to raid the city again.

6W-438 was eager for exploring a deep, dark cavern in the mountain-side which the Disci, whom they now discovered called themselves the Uum, shunned through superstitious fear. They claimed it to be the pit of the damned and would not venture near it, let alone explore it. Their antipathy towards it was a strange one, possibly inherited, the machine men deduced, along with their many legends.

At this point, the professor discovered their belief in an after-life. The Uum claimed that long ago in the age-old past, many of their number had been destroyed in the cavern, and that the anguished souls of those who had died still haunted the place, ready to waylay and gather to themselves the souls of those who entered to add to their miserable company in the dark, gloomy depths of the mountain.

ON the other hand, the Uum believed that after death and subsequent cremation on their funeral pyres, they would go upon the wings of the smoke to an eternity with their ancestors on the other side of the mountain. Around this strange legend there abounded the belief that in the beginning the Uum had dwelt beyond the mountains in luxury and ease, but that they had done something wrong, or some fearful catastrophe had driven them out of this veritable Eden and forced them to live among the constant dangers of the Ooours and Eiuks in the walled city of Ui which their ancestors had built. On this last portion of the legend, they were uncertain and hazy.

The Zoromes decided on searching among the mountains for the Eiuks and exploring the dreaded cavern of the Uum, both at the same time,

dividing their forces into three contingents. The largest body was to remain in Ui with the space ship. 744U-21 and 41C-98 were to lead a winged party into the towering reaches of the mountain peaks in search of the Eiuks, while the professor and 6W-438 explored the gloomy cave in the mountain along with the remainder of the machine men.

On metal wings, more than a dozen Zoromes rose into the air and headed up the mountain, keeping several hundred feet from the rugged walls and projecting escarpments. Watching them, Professor Jameson could not help but recollect the disaster which had befallen a similar flying contingent on the planet of the double sun. He fervently hoped that they were going into no formidable dangers above from which they might be toppled in a headlong dive of death to the ground. The mechanical wings were capable of upholding their possessors in space as well as in atmosphere, for instead of beating the air they employed a repulsion-power against gravity.

Meanwhile, before the professor and his metal cohorts lay the unknown mysteries of the forbidden cavern. A cursory examination of its orifice just before the machine men had separated on their various errands had revealed a trace of ancient waters.

"This must once have been a subterranean waterway," 6W-438 observed. "This is where the river came out of the mountain."

"It was very long ago," said 744U-21, adjusting upon his conical head the temperature equalizer for possible flight into space. "The condition of the rock over which it once flowed discloses this fact, and it is very hard rock, too."

"The stream must have either originated on the other side of the mountain, or else from high up in the mountains where it may possibly have followed the vent of an extinct volcano."

"Perhaps," enthused 6W-438, "this is a tunnel which leads through to the other side of the mountain."

"Beware of a labyrinth," warned 744U-21. "Remember well how we became lost in endless, intersecting tunnels on another world. Do not again enter such a place."

"We shall employ extreme care," the professor promised.

744U-21 rose to join his winged companions who had disappeared far above. 21MM392 with seven others of the Zoromes entered the huge opening and walked into the blackness, directing their body lights ahead and to each side.

The course of the ancient waterway turned and twisted, but the general direction was always the same, the confines narrowing and broadening haphazardly. As they progressed deeper into the mountain, the age-old marks of watery passage became less weathered and more sharply discernible. They were glad to find no diversions from the main channel, though occasionally the tunnel expanded for more than a hundred yards. In these widened portions of their course, the professor sent his metal companions in divided groups to follow the walls until they met at a narrowing of the passage deeper into the heart of the mountain. In this manner, they assured themselves of no division in the passage into which they might confusedly lose themselves on their return. Usually, these broad caverns were characterized by a roof much lower than the rest of the channel, though in no instance did the ma-

chine men find the roof of the tunnel low enough to reach with upthrust tentacles.

"These caverns are the result of a lower and broadened strata of softer rock than the strata above and below," the professor commented. "The dissolution of this strata was governed largely, however, by the tricks and varying forces of the current."

The walls were both smooth and juttied; that is, the projections were not rough or pointed but were polished and rounded. Occasional boulders and pot-holes marked the floor of the channel, an absence of small stones being noted except those trapped in the pot-holes. Nowhere did the machine men perceive any danger either to themselves or to the inhabitants of Ui, and this lent strength to the absurdity of the Uum superstition regarding the cavern's frightfulness conjured within the fearful imaginations of the Disci.

Quite without preliminary warning, the machine men came to the passage's end, or at least they believed so, for they explored the sides and ceiling at this point as well as the floor for some radical diversion from the usual, gentle meanderings they had found. There was no alternative to the conclusion confronting them. This was the end of the passage. Before them lay an accumulation of rock, loose and boulder-strewn at the edges, hard packed and semi-solid beyond.

"The ceiling here caved in some time or other and shut this off," 12W-62 suggested.

"Do you suppose it closed off the subterranean stream?" queried 337X-80.

"On the contrary," 119M-5 interjected. "No cave-in would have halted

a stream of sufficient potency to have carved its course out of solid rock. The cave-in occurred long after the river had died away and this channel became dry."

"Suppose the river had dwindled to a small stream," countered 377X-80 for the sake of argument.

"The cave-in evidently occurred long after the stream became extinct," said 6W-438, "for the condition of the fallen ceiling debris does not correspond with the great age of the geological markings made on the walls of this channel by the rushing waters."

"And here is something to lend fact to your theory, 6W-438," the professor remarked pointing to several small white objects clustered and half buried amid the fallen rock. "These also give some credence to the superstitions of the Uum."

6W-438 picked up one of the white objects which crumbled to dust in his tentacles.

"Once these were bones."

"What would you say as to their age?"

"That is a matter for conjecture. A great deal depends upon the atmosphere and climatic conditions on this world, especially in this section, also the conditions in this long tunnel, 21MM392."

"I would venture several thousand of my earthly years," said the professor.

"Then there is something to the legend of the Uum after all?"

"Concerning the destroyed people, yes. The bones prove, or at least suggest, that, but as to the menacing spirits of these dead I believe the Uum have elaborated somewhat."

"There is nothing to do but for us to return," said 6W-438. "We have seen what there was to be found."

The machine men retraced their way, and on quitting the cavern and entering the walled city they found that 744U-21 and his flying Zoromes had not yet flown down from the mountain peaks. They returned that night, reporting that nothing could be found of the Eiuks, but endless ranges to either side of the great valley beyond the nearer peaks might easily hide them. They had searched the mountains closely all day, and with the dropping of the sun beyond the world's edge they had returned.

The Uum were not surprised to see the professor and his seven metal companions emerge safely from the dreaded cavern, nor were they surprised when they were informed that it was a long tunnel which came to an end several miles into the heart of the mountain. When told of the bones, their beliefs became firmer than ever, that malign spirits occupied the tunnel, although the machine men attested to the absence of the latter.

744U-21 and those who had flown aloft equipped with mechanical wings and temperature equalizers told of rugged peaks rising high above the atmosphere. From their lofty summits, the machine men had looked down into the endless ocean of atmosphere and gazed off into the abyss beyond the "hill" so called by the Disci. From the snow line to the rocky ramparts on the borderline of space and air, no living thing had they seen, the landscape as lonely and desolate as that thrust up beyond the ocean of air.

With the sinking of the sun into the haze off the edge of the planet fragment, the Disci composed themselves for another night's rest. Since the coming of the machine men, their nights had been peaceful ones. None of the Eiuks had returned, follow-

ing their disastrous clash with the Zoromes, but according to the Disci the raiders from above came only at sporadic intervals.

That next day, the machine men turned their attention to the Land of Exhaustion where lived the fightful Ooours of Uum description. It was decided that the space ship would accompany a party of Zoromes on foot, flying above to insure them against danger from the unexpected.

CHAPTER III

OVER THE WORLD'S EDGE

WITH eighteen comrades, Professor Jameson marched in the direction of the world's edge. A bit of the eagerness for the moment when he should step off possessed him. He knew he would not fall four thousand miles down the sheer side of the great fragment off into a sea of atmosphere and out into space yet on approach there seemed to him the prospective illusion of doing so. Out from the history of a long vanished civilization loomed a thought to accompany him. He knew how the men of Columbus must have felt when, in search of a westward passage to the glamorous shores of the Khan, they had feared the dread of sailing over the world's edge.

The space ship sailing some hundred feet or more above them neared the rim. Behind the Zoromes, a multitude of the Uum shrilled and squeaked excitedly. Though he knew better, the professor almost expected to stand on the edge of a dizzying depth of precipice, and he yielded himself momentarily to the illusion. Instead, there came a subtle change as he walked to the divide. It was difficult of explanation. It was as if

he had walked up a hill without the necessity of exertion or without the consciousness of incline. Almost it seemed as if the ground had slowly risen with him as he had walked. There he stood—on the top of the hill. Down one endless slope lay the Land of Exhaustion, while, from the direction of the gigantic mountain peaks towering nearly overhead, the remainder of the machine men and the Disci walked up the hill to join him. Belying the mistaken impression of the lofty nearby mountains, the dwindled walls of Ui lay far behind them like a toy setting of gnome-land.

Fearfully, the Uum peered down into the Land of Exhaustion, chattering in awed accents of the fearsome creatures who came out of this territory to pound at the strong walls of Ui and menace their lives.

The space ship cruised slowly a half mile ahead of them over a distant fringe of verdure. Professor Jameson and his metal companions started into the Land of Exhaustion, heading to where the space ship cruised slowly. At first, they noticed no difference from their progress made the other side of the rim, but as they neared the vicinity of the circling ship a subtle change forced itself upon their consciousness. They were becoming heavy-footed. As if on a denser planet, the machine men merely expended a bit more of energy and tramped onward, soon disregarding this increase of gravity after their interior adjustment of energy release. But with the Uum who dared to follow, lagging feet commenced to manifest their inability to proceed faster.

This may have been partly mental, for the Uum knew that slower procedure would conserve their forces

longer, just as the mountain-climber disdains to rush furiously up the slope. The Uum were occasionally mountain climbers, yet the machine men found that the altitude gained had been pitifully small, especially as compared with the enormous heights of the looming peaks. In the mountains, the cold grew successively for each higher ascent, and this, coupled with the hopelessness of ever attaining the frowning and impregnable heights, discouraged the Disci from ever knowing what lay up there, much less what lay beyond.

They were an imprisoned people, hemmed in by mountains which spread away interminably in one direction, while in the distance the mountains first paralleled, then converged with and entered, the Land of Exhaustion. In but one direction did the Uum possess free access, and in this direction, the machine men were already aware that deep, rugged canyons cut from the mountains into the Land of Exhaustion, and this latter country represented mockingly an avenue of death. If the Ooours did not get them, exhaustion did. Thus, the intrepidity displayed by those who followed the machine men into the forbidden land can well be appreciated. They straggled far in the rear of the metal vanguard, often stopping to rest, though this latter respite was scarcely the relaxation they might have expected on their own soil.

AT the spot amidst the denser vegetation where the space ship had designated something worth investigating, the machine men found several mounds of white bones, large bones which suggested Gargantuan creatures.

"Ooours!"

"Presumably. They probably died in combat. The Uum claim that they fight with each other quite often."

"I would say that they were of varying species by the contrasting sizes and formations of their bones."

While the machine men wandered over a large expanse of territory, the Uum who had accompanied them turned back to their own land, arriving there tired out. A few of them had difficulty in returning and gained the divide only through the help of fresh companions, waiting at the rim ready to rush forth and help them back again.

The machine men found none of the Ooours. In fact had it not been for the bones, they might even have doubted their existence, regarding them as figments of Uum imagination, which they were coming to look upon as rather prolific. It was at the suggestion of 12W-62 that they all took to the space ship.

From the ship, they found, on deeper penetration into this region of greater gravity, living specimens of the Ooours who lived quite distantly from the rim, all of which was well for the Uum. The machine men found variegated and contrasting species which the Uum evidently classified under a single indiscriminatory title. The Ooours were of a quasi-bestial type, showing a very low form of intelligence. Mostly, they were gigantic, towering fully three times as high as the machine men. Their general characteristic, like the Disci, were many feet, one species boasting as many as ten. Unlike the Uum, however, they were permanently stabilized, probably because they possessed anterior heads. They lived for the most part in the forests and brush. The machine men did not land, but from on high they occasionally

distinguished evidence purporting the existence of rudely constructed platforms in the trees or hovels close to the ground. They did not live separately but clanned together in tribes.

Their bodies were lean and angular, yet none the less suggestive of brute strength. Four jointed arms ended in barbed claws at the extremities of long, supple fingers. Hideous, wolfish faces were partly obscured by long, unkempt hair which also crept halfway down their backs in a bristling mane. There were variations of the species. Many possessed fewer appendages than the others, and were not able to cover ground so swiftly as did their cousins with more legs. One Ooaur tribe showed little difference between upper and lower limbs except when they stood erect. Coloring, size, occasional absence of the hairy cape and other details varied, to set off peculiar types. The separate communities often conducted wholesale battles. In fact, there were occasional brawls in a single village, which, when considered, was not surprising.

WHEN the space ship dropped low, the Ooours generally welcomed this closer investigation with raucous, bellowing challenges and fearsome gesticulations. At no time or no species did they seem terrified at the space ship. The Zoromes disregarded them beyond a cursory examination and sailed on to some other community. At one time, they were on hand to witness a combat between two parties of contrasting Ooours. Both sides fought fiercely and without quarter until those surviving represented only one faction. Out of the carnage, the victors ate of their vanquished enemy, slung the remainder

across their backs and returned to their village. Their own dead they left behind untouched and unburied.

"Pleasant creatures," 6W-438 observed. "No wonder the Uum have built such a high wall about Ui."

On the cruise back to Ui, the machine men noticed a difference of vegetation from that which they had previously seen at right angles to the Land of Exhaustion. Upon the planetary side of greater gravity similar species varied in growth, showing the altering tendency of gravity, while specimens of plant life seen in the neighborhood of Ui were not to be found at all on that side of the rim.

A tribe of Ooours tried to follow the course of the space ship along the ground but were soon lost from view, and no more of the formidable brutes were seen on the way back to the rim. Reaching the world's edge, they saw first the towering mountains; then the distant city of Ui shot suddenly into their vision.

Several days passed and the machine men learned more about the Uum and the vicinity in which they resided. Once, there had been many small communities of the Uum, but the raids of the Eiuks and Ooours, so legend had told them, had reduced the Disci to their present numbers and forced them to seek the refuge of a strong, central city. The wandering Zoromes found the remnants of old villages scattered along the world's rim. Running in one direction, the rim merged into the great mountains which flung their lofty parapets over the edge of the huge fragment, while in the other direction the rim became less sharply defined, the edge rounded, flattened and serrated with canyons. At this point it was difficult to define one's posi-

tion as on either side of the world. In comparison to the enormous bulk of the planet, this tiny facet represented nearly a hundred miles of uncertainty to the wanderer upon its surface. Strangest of all, was the river which flowed over the edge of the world. The machine men discovered this beyond the region of the canyons, a river inaccessible to the Uum. The main difference evidenced by its change of location after flowing over the rim into the Land of Exhaustion was the deeper channel it dug, although the depth of water was no more or less generally. Floating objects possessed less buoyancy, too.

The machine men had looked for the Eiuks and the Oaos in vain, for they had not found the slightest evidence of them in their search among the mountains. Having witnessed the startling proof of the Eiuks, they nevertheless still doubted the existence of the Oaos. The latter, it was understood, though resembling the Eiuks in spherical contour, seemed benevolently disposed to the Uum and were more rarely seen. Both comparison and contrast merged into one. The Uum possessed strange legends, the machine men already knew.

FINALLY, the event for which they had waited so patiently and expectantly occurred. The glowing Eiuks descended one night upon a raid. A watch of the machine men first discovered them as tiny points of light sinking tranquilly, yet with sinister intent, like slowly detached stars from out of the studded heavens. The alarm was spread among the machine men who donned their mechanical wings in readiness.

"Do not kill unless it is necessary,"

the professor warned. "We must follow them back to their lair."

The city remained quiet, the Uum unawares of the creeping death from above. Only the machine men knew. There were more than twenty of the tentacled spheres this time, all white and glowing, ready for a raid upon the unsuspecting Disci. Patiently, twenty-three Zoromes waited until the shining globes were just above the city, slowing their descent. For rapid emergency, the machine men carried their deadly ray ejectors, the professor's weapon ever ready, permanently installed in a fore tentacle. When the first Eiuk dropped to a window, then did the professor give his signal, and into the horde of descending creatures the machine men swooped, circling the scintillating globes.

Apparently unafraid, the Eiuks became only mildly surprised, perhaps momentarily disconcerted. Fearlessly, they sprang to attack this flying interruption to their intended feast. They were met with grinding coils of metal and deadly rays which matched their own peculiar brilliance, killing and maiming to right and left. So silent was the attack and its deadly counter-thrust that the inhabitants of the city slept on, blissfully ignorant of the carnage so close above them. They might have remained unknowing until morning had not a falling Eiuk, its corpse devoid of all fiery life, struck the roof of a dwelling with considerable noise, arousing the inmates. Startled Disci ogled their huge eyes at the confused swarm of Eiuks around which the flying Zoromes were twisting and turning in flight.

A screech of alarm in turn aroused the sleeping Uum in the surrounding buildings until the din was

such as it had been on that night when the machine men had first encountered the brilliant, spiny spheres from above. Let it be said, however, that in accordance with the immediate telepathic instructions of the circling Zoromes, the Disci did not emerge from their homes, and they kept the entrances closed.

Baffled, defeated and reduced in numbers, the Eiuks abandoned their attack on the city of Ui and slowly rose into the sky. Those who still lived left the scene of their defeat like lifted lamps, unhurried and majestic; unhurried because the machine men did not feel prone to accelerate their departure, majestic because their flight was directly vertical like the ascent of a balloon in still air. Where more than twenty of the shining balls had dropped into the walled city, only eight glowing orbs ascended, and beneath these the machine men of Zor slowly rose in passive pursuit.

"Where are they from?"

Each Zorome pondered the question, and the suggestions were many.

"The mountains."

"Above or below the atmosphere?"

"Above—in space."

"What? On the frozen, desolate peaks where they cannot breathe?"

"Why not?" 6W-438 asked. "Did not the creatures of the outer crust on the sunless world exist without respiration?"

"But these things can only ascend where there is air upon which to ascend."

"That is more or less to be taken for granted," the professor interposed. "We do not know for a certainty. Our mechanical wings are capable of carrying us into space."

"To be sure," said 119M-5. "We carry repulsion charges, but what is their mode of ascent?"

Not one of them yet knew. They could only resort to conjecture once more.

"They live beyond the mountains."

"Then they possess acclimation and movement in space in order to cross over them."

"It is more likely they live in the mountains below the air limit," offered 6W-438. "There may be a defile somewhere, giving them access beyond the peaks, seeing that we have searched on this side of the range and have failed to find them."

The Eiuks rose, ever in a straight line, until air currents swept them closer to the towering mountains, yet they did not land but continued to rise. The machine men followed but made no manifestations of their pursuit. Whether the Eiuks possessed knowledge of their being followed, the machine men did not know. What little intelligence the shining bodies held remained imperceptible to the mental probings of the Zoromes.

The excited hubbub of the city had diminished to a lingering murmur long ago and was now replaced by a silence broken only by the rasping of a metal part or the slight collision of two metal bodies.

THE drifting globes finally ceased to rise, floating along on a current of air straight for the dark, sombre mountainside. They were far up in the rarefied atmosphere. Approaching closer to the mountains, the machine men distinguished uncountable multitudes of the shining spheres either at rest on the ground or else slowly bobbing up and down like rubber balls under low gravitational attraction.

"We searched this section of the mountains very carefully!" one of the machine men exclaimed. "Nowheres

did we find even a trace of the Eiuks!"

"They may not have been here at that time, especially if they are migratory," 6W-438 ventured.

"It is also possible that in daylight they are invisible," Professor Jameson suggested.

As far as they could see in every direction, the shining, animate globes dotted the mountains. The machine men soared far above in order to obtain a more composite view. There were literally millions of the things. Like the lights of a long, straggling city, they stretched away into distance, until black peaks and rugged escarpments blotted them from sight. One peculiarity, however, struck the machine men as significant. The Eiuks seemed generally confined to a definite stratum of altitude. There were a scattered few who shone upon lower levels, but above the main, glowing band that stretched away over the rugged slopes, all was darkness. Below this darkness, the bobbing lights, fewer among their more stationary brethren, made a curious, changing pattern.

"We shall wait and see if they disappear and become invisible in the daytime," Professor Jameson said. "We must know more about them."

They had not very long to wait for dawn, and soon after came daylight, yet sunlight lagged much longer, due to the immense heights to which the mountain range penetrated. Dawn had first shown its fingers from the direction of the far-off canyons. The machine men watched the Eiuks closely with the coming of dawn. At the first lessening of darkness, a curious unrest became noticeable among the shining spheres. Looking down from positions far up on the side of a towering cliff, the machine

men saw the entire assemblage of Eiuks commence to bob up and down. This strange motion became more pronounced until suddenly several out of each hundred or more commenced to rise slowly. With the increase of light, more of them followed in that majestic, stately rise which was so characteristic of them. Their brilliant glow became less noticeable as dawn merged into daylight, and they rose like slow bubbles in a heavy liquid.

With the coming of daylight, an awesome panorama of terrifying splendor thrust itself upon the mechanical vision of the Zoromes. So high up were they that seemingly at the foot of the peaks lay the awful abyss dropping into the Land of Exhaustion. Like a tiny square below them lay the city of Ui, while all about in colossal grandeur rose the mighty peaks, visible far up beyond the atmosphere only where the unveiled sunlight glared dazzling from their towering pinnacles.

Like burnished, bronze bubbles, the Eiuks arose in a steady stream ever skyward. They reached the level of the waiting Zoromes and still they continued to ascend, gaining momentum as the daylight waxed brighter.

"Follow," was Professor Jameson's one thought.

And the mechanical-winged Zoromes, releasing their holds and positions among the niches and narrow ledges of the precipice, followed the upward flight of the Eiuks. No longer were they the shining, glorious objects of nightfall. Daylight had out-rivalled their nocturnal splendors, reducing them to the orange balls they appeared to be. The machine men kept close to the mountains; the Eiuks kept straight up, not pausing to rest on the higher altitudes they

were passing. Occasionally, below them, an Eiuk would cling with tentacles to either a rough bit of rock or sparse vegetation. The creatures were pulled, as with an invisible hand, toward their rising companions. The vegetation pulled away from the rocks and the clinging Eiuks shot up more rapidly than their fellows. One, clinging to a rock, sluggishly carried the rock up with him.

"I have an idea," said the professor.

"What is it, 21MM392?" 6W-438 inquired.

CHAPTER IV

VICTORS AND VANQUISHED

SHOOTING through the air, the professor headed straight among the Eiuks who sprang away from him a bit, yet never ceased their upward course. The professor interwove a curling tentacle among the numerous tentacles of an Eiuk. Quickly he seized another of the creatures and still another, clinging tightly to all three. Releasing his power of repulsion, he felt his dead weight hang on the struggling Eiuks. Their ascent slowed to a standstill; and they commenced to drop slowly. The professor took the opportunity of examining his three live captives and nowhere could he discover any methods of flight. He only saw that the many tentacles of the things seemed harder than those of the dead creatures the machine men had previously examined on coming to the city of Ui.

The rest of the Zoromes circled among the rising multitudes of Eiuks, confident that there was no longer any danger of frightening them from seeking their habitual haunts. They seemed unable to re-

sist a strange, compelling call which drew them ever upward.

Slowly but steadily, the three Eiuks to which Professor Jameson resolutely clung dropped in reluctant descent. The machine man could feel and sense some power which attracted them from above. Then that, for which he had looked, occurred. In a blaze of glory, a penetrating beam of light shot out from between two rugged peaks and grew broader and brighter as the sun burst into view. The professor realized a subtle change. Their drop became slower, and finally they barely moved. The first thing he knew they were rising again. A few laggard Eiuks shot past them to join the main van far above. Several machine men hovered in the vicinity of the professor, while the larger number of Zoromes flew steadily upward with the Eiuks. The professor released one of the creatures which shot like a plummet into the rarefied atmosphere above. Still their ascent continued, yet noticeably checked. Releasing the remaining two tentacles, Professor Jameson allowed the remaining Eiuks to join their companion, while he dropped with the speed of a falling object. Checking his accelerating momentum with an application of his mechanical repeller wings, he rose with his metal companions.

"I believe I have cleared up several conjectures in our minds," he said.

"I can anticipate your discoveries," offered 6W-438. "The secret of the phenomenal rise of the Eiuks is due to daylight, sunlight especially."

"Exactly," the professor agreed.

"And their domain in the daytime is the highest reaches of the upper atmosphere, while at night they

descend to lower levels. What power do you suppose daylight exerts upon them?"

"I would say that it generates a gas within them which they cannot release fast enough in the daytime to remain on lower levels. At night, they have more control over it. This would allow them to descend to lower levels and raid the Uum. We shall see if they do not rise to the outer limits of the atmosphere much like an object lighter than water rises to the surface of an ocean."

The ascent of the Eiuks became modified, a goodly number of them failing to rise any farther. The paling stars became brighter and more profuse in quantity. Far above, the professor perceived multitudinous fields of the floating, orange globes now at rest on the outskirts of the atmosphere. They could rise no farther. From above the edge of the world to the great mountains, their uncountable legions stretched away into waning perspective. Above this galaxy of sentient Eiuks flew the machine men of Zor, the belated professor and his two companions joining them. From above, the Eiuks were nearly invisible.

"At night," opined the professor, "these creatures will be generating less gas and drop to lower levels."

"They probably feed on the mountainside," 12W-62 suggested.

"Or on the Uum when they descend that low," 6W-438 added. "Why is it they do not come oftener to Ui? There are such countless numbers of them."

"It is possible," advanced 41C-98, "that only during a phase of their life are they able to descend into such dense atmospheric depths, perhaps some physical condition being responsible for it."

"Even as the eels in the oceans of my earth," mused Professor Jameison, his mind bridging the interminable abyss of time.

"All of which destroys any relationship between the Eiuks and the Oaos we may have theoretically established," 744U-21 reminded his metal companions as they sped swiftly above the bobbing assemblage of dimly perceptive spheres. "We have it on word of the Uum that the Oaos have been seen during the daytime. They have also befriended the Uum against the Ooaurs and Eiuks if these tendencies can be accepted as entirely altruistic."

"I believe the existence of the Oaos to be a myth," affirmed 41C-98. "With all the dangers that beset them, the Uum certainly need a mythical basis of hope and moral support."

Such were the divided opinions of the machine men as they penetrated through the suspended ranks of the Eiuks and fell towards Ui in a series of long drops. Back in the walled city they told of their adventures above the stratosphere of the odd-shaped world where they had found the lair of the shining globes and had solved the mystery of their nocturnal raids. Of the Oaos, however, they had learned nothing. In fact, they knew less about them, for their previous theories had become discarded in the light of the ensuing discoveries. The machine men of Zor tried to learn more about the Oaos from the Disci, but all they could obtain were the few scanty repetitions previously told to them.

THE next day, several Uum came running and gabbling to the city gate. They had come from the borders of the Land of Exhaustion

where a large band of Ooaurs had been sighted. The brutes were heading for the world's edge. In fact, a swift glance from the walls of the city aroused consternation and alarm, for the Ooaurs were to be seen in the distance, coming over the rim.

Machine men suspended repair work on their space ship which they had moved to a convenient location within the city walls. All Disci outside the city scurried for the safety of Ui where the huge gates were being hurriedly closed. Comrades were allowing them entrance through small openings which were hastily closed and barred once the Uum had gained sanctuary.

In the distance, halfway between Ui and the rim of the world, a single one of the Disci rolled madly along on his endless row of feet like a whirling cartwheel. A mingled roar was emitted from the foraging Ooaurs, and several of them set after him with rapidly increasing speed. It was a desperate run for life, but the finish soon became apparent. The Ooaurs thundered along at a terrific gait, and 284D-167, the machine man, who ran futilely to intercept the dreaded creatures, was far too late to be of any help.

Ferociously, the howling, triumphant Ooaurs raced down upon their fleeing quarry in a cloud of dust which partly veiled the vicious and competitive tearing apart of the luckless victim even as the echo of his one piercing shriek rolled back from the massive walls of Ui. Four machine men on vantage points of the protecting wall dropped to the ground and ran to where 284D-167 was now becoming the central object of the approaching Ooaurs who sensed still another easy victim. All

five were unarmed. Of these, 5ZQ35 sent back a mental admonition to the machine men within the walls.

"Bring ray ejectors! Their numbers are many!"

While three of the Ooours hastily bolted down the remains of the Uum they had so easily caught, at least six of the huge creatures descended in a rush upon 284D-167 who went down beneath their thrashing bodies before the arrival of his hurrying companions. Herculean appendages tugged and tore at his metal parts. In the heat of competition, the Ooours were slow to realize that something was materially wrong with this thing they had selected as their prey. Their sluggish minds became first of all surprised, and then they became irritated to exasperation.

Meanwhile, a tentacle had twined itself about a shaggy leg, and under pressure the tortured Ooaur belched in threshing pain and rage, blindly belaboring his companions and tugging madly at the metal cube beneath them.

It was at this moment that 5ZQ35, 7H-88, 168P-75 and 8L-404 rushed to the aid of their fallen comrade. Coming to grips with the gigantic Ooours, the machine men realized that here they had no easy adversaries despite their own advantages. Moreover, the rest of the Ooours were coming up, several to join the fray in the hopes of obtaining a part of the kill, the rest sweeping on to the walled city.

The combat of the five machine men and their huge adversaries resolved itself into a strange battle of pulling, hauling, squeezing and ineffective biting. 168P-75 and 5ZQ35 each felt a tentacle pulled from their bodies, while a leg had been bent

beneath 284D-167 in the general rush.

Ooours were beating and yelling at the walls. Upon each other's backs they climbed, gathering pyramids for ascent. Uum, terrified but resolute, patrolled the walls with long, sharp pikes, ready to stab at the leaping, climbing beasts which came close enough for them to reach. The Ooours fell back in howling anguish when stabbed, madly beating the walls with fisted paws. Their ability to leap nearly to the top of the wall was both surprising and appalling. One savage leap resulted in the seizing of a threatening pike, pulling its wielder off the wall and into the anticipatory grasp of several Ooours.

These were the sights which met the eye of Professor Jameson and seventeen companions as they sprang upon the wall with ray ejectors ready. A burning bath sprayed the Ooours, quickly turning the raid into a rout. Dead and wounded fell thick beneath the walls before the great brutes realized their danger and fled. The Uum, never having killed an Ooaur or having seen a dead one, marvelled at the efficacy of the ray ejectors. To them, the conquest of the Ooours was vastly more amazing than the deaths and frustration of the Eiuks. The shining spheres on their night visits evoked a different sort of terror, something akin to supernatural dread. The machine men were such strange and unworldly creatures that it had not seemed so surprising that they should have conquered the Eiuks, but the Ooours were more tangible and physically adaptable to their restricted imaginations. The Disci understood the Ooours more readily. To the Uum, darkness and mystery lent the Eiuks imaginative terrors.

MOST wonderful and more sensational to the sight of the Uum were the individual combats into which the general fight between the five machine men and their adversaries had resolved itself. Outnumbered two to one, crippled but unconquered, the idomitable Zoromes were emerging victorious. A ripping tattoo of metal feet and the crushing power of serpentine tentacles were telling a tale of mastery over flesh and brute strength. In maddened pain, the Ooaurs occasionally flung a machine man into the air and made good their retreat, but most of those who had entered the fight with the machine men were strangled to death, battered to shreds by metal feet or otherwise torn and lacerated into expiring heaps. 5ZQ35 waged a difficult combat with only one tentacle left. Under the tremendous pressure exerted on his metal legs, 8L-404 could no longer walk; he could only crawl on his bent, lower appendages. But victory was soon theirs.

In the distance, the escaping Ooaurs disappeared rapidly over the world's edge into the Land of Exhaustion, more than a dozen of the Zoromes pursuing them with the searing, burning death. No time had been taken to don the mechanical wings, and the machine men found the Ooaurs well equal to their pace over the terrain. The machine men found they did not gain on the Ooaurs, but it was their desire to keep pushing deeper into their usual stamping grounds in order to discourage a further attack upon the walled city of Ui.

Straight into the Land of Exhaustion the machine men followed the retreat of the monsters. Occasionally, one fell behind because of some

injury sustained in the raid on the Uum. In such instances, the laggards were quickly dispatched, and the machine men thrust further on in pursuit, passing the first fringes of vegetation and spreading out widely to prevent even a temporary pause of the Ooaurs.

The professor found himself next to 27E-24, who represented the extreme left flank. The Zoromes had now spread so far apart that the professor no longer found himself in mental contact with the machine man on his right. With this realization, the professor notified 27E-24, and they both swung to the right, yet kept straight on in a slanting line which would bring them nearer the main body of Zoromes.

27E-24 and the professor pushed their way through a sparsely verdured forest land, possibly a half mile or more from each other, when a mental cry arrested the forward progress of Professor Jameson.

"21MM392! Ooaurs! They are attacking me!"

It was 27E-24, and he had stumbled upon the vicious creatures.

"Use your ray ejector!" the professor advised him. "I am coming!"

"There are many of them—and 21MM392—they are not the ones we were pursuing! They are a different species of Ooaurs!"

The professor ran rapidly in the direction of the fray where 27E-24 was being beset by a large body of the Ooaurs.

"They are too many for me, 21MM392! They know no fear, although I have killed at least three of them and injured more! My ray ejector has been knocked out of my grasp, and they are upon me by weight of numbers!"

Professor Jameson dodged in and

out among the bushes and their overshadowing companions, strange giants of the plant world resembling a continuous canopy where they twined and interlaced overhead. He came in sight of the Ooaurs who had arisen from the overwhelmed machine man and were leading him away. 27E-24 struggled valiantly, but his burly captors were several times his own size, and he was surrounded, his tentacles held firmly and at a respectful distance from his lower limbs.

Rushing upon them, the professor blazed away with his built-in heat ray. An Ooaur dropped ere they were aware of his swift and silent arrival. But once they had seen him they were not slow to act. A quick glance showed him that fully thirty Ooaurs comprised the party, several of them straggling behind in what might have been described as a haphazard rear guard. It was this latter division which wheeled upon him so swiftly and viciously.

The professor knew he would be better off if he kept free from their dexterous clutches of brute strength, especially where they were so overwhelming in numbers, and he eluded their charge, waving his heat ray upon them and turning to aid 27E-24 in escaping the many-legged monsters. Simultaneously, 27E-24 put up a Herculean struggle which caused his captors much concern and discomfort but which failed its purpose. Professor Jameson had reckoned without consideration of the amazing speed the Ooaurs were capable of exhibiting. While he sprang clear of the first charge, his heat ray burning death among the Ooaurs who held his metal comrade pinioned, the rest of the creatures raced down upon him. Before he knew it, the

professor, too, was a prisoner, though his heat ray had claimed four of the monsters and continued to blaze a path of havoc among the lower appendages of the brutes until one of them, exerting the power of three mighty arms, and snarling horribly, jerked the dangerous fore-tentacle away from the professor's cube.

Life was cheap here. The Ooaurs paid no attention to their fallen brethren, the dead were left where they had succumbed, the wounded and disabled limping off in the rear of the savage company who bore away triumphantly their metal prizes. The necessity, mother to the act of tearing away the tentacle with its damaging heat ray, awakened a sluggish inspiration in the stupid mind of the beast who had performed it. With much growling and chattering, accompanied by obvious pantomime, he finally made it clear to his fellows that they would experience a great deal less trouble and hazardous inconvenience were they to pull away all the tentacles of the things they had captured.

To the equal consternation of the professor and 27E-24, the Ooaurs put this plan into practice, uniting their energies until the two machine men were without upper appendages. Greedily, several of the monsters tried eating the disengaged tentacles, finally throwing them away in growling disgust. The idea of removing the tentacles furthered the inevitable design of similar removal of the legs. Here, the Ooaurs experienced more difficulty, for the metal legs did not come off so easily. They wrenched, bent and twisted until they had succeeded in pulling off five of the metal legs, three from 27E-24 and two from the professor,

so that the machine men were now absolutely helpless, their remaining legs unusable and damaged beyond repair, by the tremendous efforts exerted by their captors.

The two metal bodies were picked up and carried by two of the Ooaur, the entire horde heading deeper into the Land of Exhaustion. From what the machine men could learn from their small brains, the Ooaur were heading back for their village.

CHAPTER V

THE OOAUR VILLAGE

"I HOPE they do not touch our heads," said 27E-24.

"It is unlikely that they will, unless they should become curious regarding our mechanical eyesight, and even then there is little that they could do."

"I dislike the thoughts of what a well-aimed rock or heavy club wielded by one of these giants might do to our precious heads."

"It is not likely to occur to them," the professor reassured his companion, though he was a bit nervous over their prospects himself. "We can only wait until the space ship is repaired and they can come in search of us."

"They may come on the mechanical wings."

"It is improbable that those who came with us will find us. We are now headed off on a tangent from the course we originally chose. It was our ill fortune to stray from mental contact with the rest and chance upon this band of Ooaur different from those we had routed."

The Ooaur jogged onward. The character of the ground over which they were passing changed. The plain came to an end on this portion

of the flat world, and gentle slopes and valleys replaced the level monotony. In one of these valleys, they came eventually to the village of the Ooaur. It was dirty and filthy. That was the first impression the machine men gained from the heterogeneous collection of huts and shelters, erected from branches, boulders and rock slabs, embellished here and there with a composition of twigs and dried clay. Often, the central stanchions were the trunks of living trees. The architecture spoke not only of ignorance but laziness as well. Ooaur rushed out of shelters nearly fallen to pieces through lack of repair as the returned hunting party entered the village, chattering in boastful excitement of the strange things they had captured by pulling off their arms and legs.

The two machine men were dumped unceremoniously upon the ground amid the central collection of huts rambling up a low hillside. The setting sun shone dully off the metal bottom of Professor Jameson's cube where he had fallen on one side. 27E-24 had been dropped right side up, slightly tilted towards the professor where a single, bent and useless leg upheld him slightly. The two helpless Zoromes became at once the objects of questing, feeling claws as the Ooaur examined them attentively yet uncomprehendingly.

"Keep your eyes closed," Professor Jameson warned his companion. "We do not want their curiosity to lead them into too prying an examination of our heads."

But like the professor, 27E-24 had also closed his eye shutters soon after entering the village, and if the Ooaur recollected a difference they did not stress it as of any importance.

One of them waved a dangling, metal tentacle with voluble explanations concerning its relation to the trophies they had brought back with them. The machine men were tipped and rolled about until the long enduring dusk had finally yielded to darkness. Darkness had long before fallen on Ui and its surrounding country, and the two Zoromes wondered what was happening there. Had their companions returned to Ui from the Land of Exhaustion? Then they were already missed. Or had they finally caught up to the fleeing Ooours? If so, they might not have returned this soon.

THE dismembered machine men were positive of one condition, however. On their failure to return in proper time, a search would be instituted for them regardless of whether the space ship was fit to cruise once more or not.

A short night yielded to a steady fringe of light upon the distant horizon which heralded the new day. The village of Ooours aroused itself from bestial sleep. The sun crept rapidly over the world's edge, and the new day was born.

Once more the curiosity of the Ooours manifested itself in their critical and awkward examination of the machine men's torsos. The professor was once turned and balanced on the apex of his head. The Ooaur released his hold and the heavy cube fell flat upon the feet of another beast who howled his pain and smote the careless offender for dropping the body. There came a growling retaliation, and the two ill-humored monsters were at each other tooth and nail. From his side-wise position it reminded the professor of a dog fight, with all the

other dogs gathering in a circle of acclaiming din and howls. Whatever degree of intelligence they came across, from the greatest to the least, the Zoromes invariably found that creatures of flesh and blood enjoyed watching a fight.

The combat resolved itself into a rough and tumble, biting affair, but its outcome was forever left in doubt. Shrill cries from outside the ring of spectators turned the interested onlookers to a new attraction, one in which they found alarm rather than enjoyment. The audience disappeared, leaving the growling, surging contestants momentarily unaware of the turn events had taken. Not until peculiarly shrill cries, unlike any the machine men had yet heard their captors emit, brought the battling brutes to a realization of something yet undetermined by the machine men did they cease fighting. Then their whole demeanor changed and they rose to join their companions who came surging back to the center of the village in a retreating mass.

From the opposite direction, there came a charging horde of Ooours, more darkly colored than those the machine men had yet seen. They were more squat, yet none the less bulky, and their hair grew longer. The machine men realized now the consternation of their captors and the cause for alarm. The village was being attacked by a different species of the Ooours, and the latter species appeared to be in the majority, brandishing large clubs. Some of them carried as many as four, one in each long-digited claw.

FROM the slowly retreating mass of villagers into whose ranks the newcomers suddenly fell, the two

helpless Zoromes deduced that superior numbers were pressing them from the front. Attacked on two sides, and taken by surprise, the fate of the villagers was already apparent, for the end presaged itself. The carnage and slaughter, most of which became obscured from the stationary view of the two Zoromes by the dark-brown, thickly-haired bodies of the invaders, was terrible. Yet the villagers fought to a hopeless finish, giving a good account of themselves. Quarter was neither given nor asked.

Not satisfied with what loot and plunder they could find, which strangely enough appeared to consist mainly of odd-shaped bones, the victors engaged in an unrestrained orgy of vandalism. They tore down the homes of their vanquished foes, strewing refuse all over the village and scarcely leaving one stick in orderly contact with another. Others amused themselves by bashing in the heads of any wounded survivors not of their own tribe.

The two machine men were quickly discovered once the villagers had been dispatched to the last Ooaur, and once more the former underwent first-hand observation and handling. These conquerors had never seen the machine men in action, and so in no way did the two Zoromes give evidence of any sentient character. To the Ooaurs, they were merely ornaments whose acquisition the villagers had in some way managed. The weak, concentrative energies of the Ooaurs spent little conjecture on this point. To the victors belonged the spoils, and these marvellous, cone-pointed cubes of hard, glistening metal were the greatest prizes of all.

The machine men hoped against any curiosity the Ooaurs might show

in regard to their inner contents. Though their metal heads were constructed to withstand severe usage, they feared the consequences of a repeated attack on their heads with the powerfully wielded bludgeons.

Having created all the disorder and destruction of which their poor imaginations were capable, the Ooaurs evacuated the scene of desolation and death, carrying away with them their new acquisitions. Once more the machine men were carried off by Ooaurs, this time in a tangent direction, skirting the great plain, a direction promising to bring them gradually closer to the edge of the world. For a long time, the warring invaders held to their course, constantly shifting their weighty burdens in order to keep pace with their fellow creatures.

It was Professor Jameson who first saw the specks on high which grew larger and approached. A mental flash to 27E-24 appraised him of the professor's initial hope that flying Zoromes had come in search of them, but these hopes became dissipated as the objects in the sky came nearer. That they were bright and reflected the sunlight like the metal sides of a machine man's cube the professor verified on their closer approach, but they were nothing resembling Zoromes. They were, seemingly, balls of metal.

"Oaos!" exclaimed 27E-24, echoing the thought of the professor. "They do exist! There are three of them!"

"They are coming down here!" the professor exclaimed. "Yes, they are metal, but what are they?"

The metal globes floated nearer so that now the Ooaurs, too, noticed them. In mingled surprise and ex-

citement, they shouted, pointed upward and gesticulated.

"Tiny space ships—or aircraft," 27E-24 surmised.

"We have seen no creatures here small enough to occupy them," said the professor. "These globes are much smaller than the Eliuks. A single Uum would have difficulty in getting himself into one, regardless of necessary mechanism."

"It is directed by an intelligence. That is apparent. We must communicate with them."

BOTH machine men sent out strong, mental calls, their minds searching for an answer or inkling that they had been heard. Searchingly they sought, and they found only a blank. Yet the three globes still descended, two of them coming close above the heads of the Ooours. Above the captive machine men, they paused and kept pace with them. The two Zoromes had an excellent opportunity, and they closely examined the metal globes, finding exterior markings suggestive of inner mechanism. In turn, they felt themselves minutely examined. This feeling originated from the actions of the three Oaos rather than a telepathic source, for of the latter there appeared to be no existence.

"Do you suppose they are mechanisms like ourselves, governed by an organic brain?"

"I doubt it," the professor made reply. "If that were so, we would have found it out, yet on the other hand I recall that in the secret city of 6D4 back on the planet of Mumed, his towers were constructed to be thought-proof, so it may be that these globes are made in such a manner."

The Ooours were making warlike

gestures with their clubs. One of them threw a bludgeon at the lowest of the globes. A shower of up-flung missiles followed this initiative, and several clubs clattered and glanced off the bright sphere. Out of the globe shot a glistening stream of green liquid, then another, full upon a cluster of the Ooours.

Dense puffs of acrid smoke arose from the doused creatures, who fell screaming in contorting agony. Their companions fell back choking from the fumes which arose from them as their motions and sounds became stilled. They lay dead, yet the smoking vapor still arose from their inert forms, which became smouldering, withered, eaten-away semblances of their former selves. The Ooours fled them in terror, yet the ire of the Oaos seemed yet unappeased. The two from on high shot several streams of the green death upon the strung-out cavalcade of Ooours.

In consternation, the professor saw one of the terrible streams strike close to his metal cube. An Ooaur received it full upon the head from which it spattered in a shower upon the surrounding beasts and upon the professor's head and cubed body. Its emerald film obscured the sight of one eye. Puffs of smoke arose angrily from the stricken Ooours and their maddening pain caused the air to resound with agonized shrieks. They ran in aimless circles, beating madly at their bodies and rolling upon the ground. Some ran in a straight line until they fell dead or foaming in madness, their shrieking agony descending in volume like the wail of a departing siren. Others fell upon their companions in pain-maddened rage, enveloped in the fumes of their living cremation. The professor's brain

stood still in its train, fastened upon a single, terrifying thought. What would the green liquid do to metal? Nothing happened immediately, and the suspense became partly lifted.

AND what the liquid was doing to the Ooaurs was vividly and startlingly apparent. They were either dead or dying, all those struck by the liquid, and whether dead or dying the action of the fatal liquid was impartially the same. It ate up its victims swiftly. The remainder of the frightful beasts scattered in aimless flight, impelled by the terror fallen among them. Professor Jameison felt himself dropped with a bump where he fell on one side. He had been abandoned by his carrier, either through a single desire for more speed in escaping the death from on high, or else through his fear-crazed brain had sprung a simple confirmation. The mysterious metal things they carried were somehow allied to the flying globes whose material so closely resembled them. This latter thought occurred to the professor. He had fallen in a position where he was enabled to see that 27E-24 had also been given a like disposition, the Ooaurs hurrying madly from the scene.

The Oaos seemed no longer interested either in Ooaurs or Zoromes. They had not risen, but were slowly drifting away out of the professor's sight, which was largely blocked by his metal cube where he lay side-wise. He presently called to 27E-24 who lay where he had fallen slightly tilted on one corner.

"Where are the Oaos now?"

"They are leaving, going towards the edge of the world."

"Do they seem bound for Ui?"

"It is probable, though my sense

of direction has become rather confused by the character of this flat-sided world."

"The Uum, if their reports are true, have nothing to fear from the Oaos. The Oaos seem friendly to them, though the Uum seldom see them."

"From where do you suppose they come?"

"The Land of Exhaustion."

"We still do not know what they are."

"It is possible that the metal globes are operated by remote control, but logical reasoning would argue against that possibility," the professor stated. "A form of life intelligent enough to build those things would be likely to occupy them as well."

"Do you suppose the Oaos could be from another world of this system—one of the original planets?" 27E-24 queried.

"Possibly, yet it would be more probable that they are from another facet of this strange world. It has six sides, you know, presenting at least three varying forms of environment, two of which we already know."

"The gravity must be tremendous on the two ends," mused 27E-24.

Thus wandered the conversation of the two Zoromes as the day grew older and they lay in motionless silence at the edge of the vast plain, abandoned and solitary. The fleeing Ooaurs had long ago disappeared; the cloud of dust from their many feet had settled. The helpless machine men pondered the question now uppermost in their minds. When would their companions come and find them? And as the day grew in length, so grew the assurance of the professor that the green liquid spat-

tered upon him from the metal globe would prove harmless to metal.

The sun hung low, gradually nearing the world's opposite edge so far away from them across the four thousand mile width of the planet fragment, where soon it would sink beyond the sea of atmosphere. It was 27E-24 who first noticed the return of the Oaos in the distance. They were returning from the direction of Ui. The machine men counted them. One-two-three—*four!* There had been but three previously. Now there was another. Four? The professor looked again carefully, for, in the distance, more dark specks became visible and grew in perspective. They came straight for the lonely, abandoned machine of Zor. The approaching globes of the Oaos shone in the sky like gibbous moons, reflecting the light of the sinking sun.

It was 27E-24 who first noticed that only three of them presented this gibbous aspect. The rest did not appear as globes. Glimmering suspicion became mother to the confirming truth. Only three of the flying things were Oaos; the rest were Zoromes on the wing.

"It can only mean that the Oaos have been to Ui and have brought our machine men back here with them," said the professor. "They have brought them back to find us."

And Professor Jameson was right. His flying companions were soon about him and 27E-24, while the Oaos hovered far above.

"The space ship is coming," said 119M-5, pointing to a looming bulk upon the horizon. "What happened, and where do the Oaos figure in this?"

"We were captured by Ooaurs,"

the professor replied briefly, omitting mention of the fight in the village and how they had involuntarily traded captors. "The Oaos came and frightened away the Ooaurs so that they left us and ran, those whom the Oaos did not kill."

The professor cast mental attention upon the burnt ashes dotting the plain about them.

"But what are the Oaos?" 744U-21 asked. "We cannot communicate with them despite their intelligent actions."

"You know as much as I do about them," the professor confessed. "The Oaos came and left silently, except for their attack upon the Ooaurs with a greenish, burning liquid they are capable of ejecting."

"Do you suppose they are like us?" 41C-98 queried as the space ship dropped slowly groundward. "Have they organic brains?"

"If they have, they are strangely uncommunicative," 6W-438 observed. "They came to Ui, hovering over the city, arousing the acclaim and excitement of the Disci. After a while, they started slowly for the rim and the Land of Exhaustion. We have been prepared to start in search of you and 27E-24. They were silent to all our queries."

CHAPTER VI

"LIKE ISLANDS IN THE SKY"

THEY are friendly. That is certain."

The two Zoromes were taken aboard the space ship where their heads were removed and placed upon new cubes already equipped with tentacles and legs. It was found that their original cubes had suffered damage at the junc-

tions where the legs and tentacles had been removed by Ooours. These cubes could not be equipped again until after necessary repairs had been made to them. While their heads were being placed on new bodies, the two rescued Zoromes related their fight with the Ooours and their subsequent adventures.

Meanwhile, the Oaos still hovered on high, and when the space ship returned to Ui they followed. Darkness had settled beyond the rim, a pale twilight still lingering among the mountain peaks, dying out among the lesser heights to a complete mantle of night. The Oaos did not enter the city, nor did they descend. Darkness cloaked them, and neither machine men nor Disci knew if they had departed or not.

Thoughts of the Oaos became suddenly diverted during the night by the appearance of several balls of light falling slowly into the city. The machine men had come to know what this ominous sign meant. The Eiuks were on a raid for tender and delectable Disci. There were five of them, five who had found themselves sufficiently low in generative gas to allow them to settle at this forbidden level. Through some instinctive faculty, they realized the existence of the Uum as a hereditary prey.

The machine men hurried to make short work of the marauders from on high, yet even as 9V-474 stabbed the darkness with a beam from his ray ejector, two of the Eiuks changed from dazzling yellow to a beautiful emerald glow as jade spots appeared suddenly upon them and merged together. This prismatic metamorphosis rapidly lost its glorifying effect as black spots came into view and grew large where spots of

jade had first appeared. Like ebbing rockets, the Eiuks fell into the city, leaving a pungent odor of cinderized flesh. The heat rays of the Zoromes stabbed down two more of the nocturnal horrors from on high, jade spots and heat waves simultaneously attacking the remaining Eiuk. In the waning glow of the final victim, the machine men saw a faint reflection from a metal globe that swooped past. The Oaos had closed for direct hits, leaving no waste shots as a possible peril to the Uum below.

In the morning, the three Oaos were seen where darkness had come upon them the night before. With the dawn, they suddenly whirled into motion, lowering and circling where the space ship rested. Then they slowly rose on high, swooping about the ship once more and heading skyward toward the haunts of the Eiuks. It was evident that they induced the machine men to follow.

"In the ship or on the wing?" 20R-654 asked.

"Both," was the professor's opinion. "I have an opinion that the Oaos are not going very far, yet they may."

"It is now certain that they cannot communicate telepathically with us," 744U-21 asserted. "Otherwise, they would have done so."

The space ship rose above the city of Ui, every inhabitant out to watch. Ship and winged escort followed the Oaos, the Zoromes positive that the Oaos were taking them to the latter's homeland, their place of origin. High up into the mountains and still higher the Oaos led them. Soon, they were among the lower ranks of the Eiuks who were all rising slowly into the upper atmosphere. Disregarding the many-tentacled, orange globes

that were now growing more numerous, the metal balls rose ever higher, penetrating the long field of Eiuks, the latter's highest outpost. The starlit sky became darker as the atmosphere waned. The Oaos entered space, their metal sides more sharply etched where the sun shot dazzling beams of light against their hemispheres, their remainders now lost in undiffractive obscurity.

Still, the silent, lifeless mountains reached up their gaunt fingers, as if clutching vainly at the far-off stars that glowed so serenely and steadily down upon them. Little was visible of these mighty peaks, for the sun shone from the other side, and in the distance the machine men saw only reflected slivers of light. Piercing the vast ocean of air, these upthrust regions of mountain fastness were like islands in the sky.

THE flying Zoromes, now aware that the Oaos were capable of space flight, entered their space ship, and those who left once more to resume their flight with the Oaos donned their temperature equalizers, their vulnerable, organic brains now defying the frigidity of space as well as the burning, concentrated rays of sunlight upon their metal heads.

At length, the Oaos came opposite a yawning cleft between two towering pinnacles of massive breadth, and nearing this they changed their upward ascent to a horizontal level so as to pass through.

"They are taking us somewhere beyond the mountains," the professor observed, staring upward at the sunlit crags, the space between the peaks embroidered with stars.

Over the mountain pass glided the mysterious Oaos, followed by a cov-

ey of flying Zoromes and their space ship. They were far above the roof of the world, many miles above the outermost layer of rarefied atmosphere. On every side, space enshrouded them in a sunlit night, the bony, mountain heights sharp etched where sunlight and shadow clashed unblendingly. The terrain over which they flew was rough, sharp and unweathered, like the surfaces of airless worlds the Zoromes had visited; much like earth's moon, the professor visioned it.

One of the Oaos commenced suddenly to act queerly. It no longer pursued the straight course to which the remaining two globes still held. The metal sphere dipped strangely, side-slipping and rolling in an apparent effort to rise once more to the level of its companions. As the Zoromes flew near, the eccentric globe shot suddenly downward in what the professor divined was not an intentional drop but a direct fall. More than a hundred feet below them lay the base of the enormous cleft, and against the jagged rocks the falling Oao smashed to ruin.

Strangely enough, the two Oaos on high did not stop to examine their fallen companion but kept on through the pass. As one, the flying machine men darted to the wrecked globe. Its mechanism lay in broken, detached confusion among crushed and ruptured plates of the metal sphere. But nowhere could the machine men discover its inmates. The only remainder suggesting organic habitation was the swiftly congealed, green fluid which lay spattered about in hardened chunks. This the machine men knew as the killing liquid which the Oaos had shot forth among the Ooours and Eiuks. Nowhere was there the least

trace of organic life; all was mechanism, so much of it that the machine men were positive that there existed no surplus room for a passenger of any kind.

"These metal globes are governed by remote control," was 744U-21's ultimatum.

"Come," said the professor, "we must follow."

Already the space ship was nearly out of sight, still on the track of the remaining Oaos. The flying Zoromes rapidly made up the distance between.

"Why do you suppose the globe crashed?" queried 4F-686.

"Probably because something happened to its mechanism," 12W-62 replied. "The two other globes could do nothing for it, and so they kept onward."

Shortly after the machine men had caught up with the space ship, they saw more of the wrecked globes strewn about the mountain pass. How long they had been there was undeterminable.

"There is probably something about the coldness and lack of air in space which wreaks special havoc with the spheres up here," was the professor's opinion. "It would account for the fact that the two we are now following are progressing at their swiftest pace. They want to be free of here as soon as possible."

"You mean their directors want them free of here," 6W-438 corrected.

"Yes, their directors, whatever manner of things they may be. We have accorded the Oaos separate individualities so long that it is a bit difficult to acclimate ourselves to the idea that they are merely inanimate proxies."

"The directors evidently live on the other side of this lofty mountain range."

Such was the general belief among the machine men of Zor at these latest developments.

Without apparent warning, the cleft merged into a sheer precipice which dropped away for several miles, revealing the country which lay beyond. The Oaos did not descend but still sped straight over the strange country partly veiled by the atmosphere so far below. The machine men could see but little of the topography, for thin clouds hung over the surface.

AS if guided by a single thought, the two Oaos dropped quickly toward the ocean of air as they found themselves free of the gaunt mountain peaks. One of them continued to drop so swiftly that the winged Zoromes lost sight of it. The other, though falling at a swift rate was not difficult to follow. The machine men sensed a subtle anxiety of the globe to be out of space as quickly as it could safely drop. From a telescope aboard the space ship, 75J-02 announced that the first metal sphere never checked its descent, still hurtling downward at a terrific rate as it pierced the cloud blanket.

"Lost from control," was the professor's thought. "The same fate as those back there in the mountain pass."

Gaining atmosphere, the single remaining globe checked somewhat its mad descent until it reached the clouds where it decelerated gradually. For a time, the machine men lost sight of the globe, until they, too, had dropped through the clouds. Far to one side lay a city, and far-

ther away they could see more of them tiny and almost phantasmic in the distance.

The globe headed directly for the city, the flying Zoromes and their space ship flanking the flight of the surviving Oao. Eagerly, the cosmic travellers stared at the spectacle of the city growing rapidly in their vision.

They were scarcely affected with surprise through sight of the city, but when cruising slowly above the outlying buildings they gained their first glimpse of the inhabitants, a real mental shock lay in store for them. Organic discs rolled along on many feet, large, staring eyes ogling excitedly at them. The streets and tops of the buildings were full of them. The machine men had evidently been expected. The Zoromes had realized this, the moment they had discovered the secret of the Oaos far up in the airless mountain pass. But to find the directors of the mechanical Oaos to be Disci was a feature for which the machine men had never looked.

Conjecture flew thick and fast among the machine men of Zor. What relationship did these Disci bear to the Uum of the city of Ui on the other side of the gigantic mountain range near the world's rim? And why did they send their mechanical spheres over there?

The machine men had lost sight of the lone Oao that had brought them there. Now they saw more of the Oaos rising slowly to meet them. The attitude of the citizens was all friendship. A large spot was already cleared for the space ship to land in the center of the city, and at once the machine men realized that these new Disci had perfected television, for the empty spot was one which al-

lowed the space ship a perfect fit. As the space ship settled down, the Zoromes became aware of a similarity in the general architecture of the city to the few larger and more elaborate buildings back in the center of Ui. The greatest contrast between the two cities, however, was the lack of a wall here, the machine men noticed.

Crowds of Disci came milling about the ship as it settled to the ground, making the air ring with their acclaiming cries. It was evident that the machine men were held in high esteem, and probably, the professor thought, because of their befriending the Uum.

"Hail, metal men!"

This was the consensus of the cries arising from the multitudinous Disci. From out of the ship came the Zoromes, while those on the wing settled upon the ship's hull or flew down to the narrow ring of space surrounding the ship, this space commencing to fill with the shoving throngs of Disci.

"What are you to the inhabitants of the solitary city beyond the mountains?" Professor Jameson queried, concentrating his mental faculties to the attunement of the Disci about them.

Many and slightly varied were the excited replies in answer to the startling question which framed itself so unexpectedly in the minds of the Disci.

"Our brethren!"

"The lost nation!"

"Ancestral relatives!"

"The isolated colony!"

And in return, the questions flew thick and fast regarding the machine men.

"Where are you from?"

"What manner of things are you,

who are of metal yet capable of thought projection?"

Out of the confusion, several of the Disci, apparently officials of some importance among their people, stepped out of the crowd and alongside the gathering machine men.

"We are the Urum," spoke one of the Disci, the machine men divining the prerogative to the uttered speech. "You have befriended our unfortunate people beyond the barrier mountains, and therefore we hold you highly in our regard. You have protected our people from the Undum and Elkiri, their natural enemies. Here, we have no fear of the Undum, though the Elkiri occasionally float down to attack us, for species of them live on both sides of the mountains."

AT this point, the machine men were aware of vocal appellations dissimilar to those indicative of the great Ooours and Eiuks of Ui mention.

"How did your people in this lost colony get over the mountains?" asked 744U-21, expecting to hear a tale of lost space navigation. "It must have been a very long time ago, for they have almost forgotten you. You have become but an obscure legend to them. When they die, they believe their souls will float over the mountains."

"Is that so?" queried the Disci. "You see, we have no way of listening to their talk, though with our metal globes we can watch them. Unfortunately, the flight of the globes through space precludes the possibility of transmitting speech, an accomplishment supplementary to television on this side of the mountain. But here—I am failing to an-

swer your questions. How did our inaccessible colony get where it now is? Not over the mountains but under them."

"The old river tunnel!" 6W-438 exclaimed. "We explored it!"

"Yes, so have we with the metal globes as far as it goes. I feel that you now grasped the significance of our relative positions, we and our old colony. Yes, an earthquake destroyed nearly the entire tunnel, even to sealing the entrance at this end. Our colony has not progressed, you have noticed now by comparison with our city. In fact, it has degenerated if anything. Our only contact with them is rather a one-sided affair with the metal globes. They evidently do not understand them."

"You are right," 744U-21 confirmed the latter supposition.

"Tell me," urged the Disc. "How do you think, you things of mechanism?"

"We are not entirely mechanical," replied 744U-21, and he explained their combination of organic brain and metal body.

"Why do you not build the metal spheres large enough to carry yourselves back and forth across the airless voids in the mountains?" the professor suggested.

"We are working upon that," was the answer. "We have worked many long years upon that hope since we first met success in using the metal globes, but so far we have failed. Even our globes are far from what we would like them to be. They become easily unmanageable. You saw what happened to two of them."

"And there were many more high up in the mountain pass in a like condition," the professor added.

"Whenever we can," explained one of the Disci, "we protect our lost

colony of Uri from the Elkiri and the Undum. They are no match for our metal spheres."

"So we saw."

"We even attempted to dig out the tunnel, but we gave it up as a hopeless task."

"You felt that more efficient space navigation would be apt to occur sooner?"

"We hoped so."

Epilogue

THE machine men and Urum learned much from each other. In their brief stay among the Uum, the machine men had discovered many things through conversation that the Urum had not learned in an age by using their mute Oaos. In return, the machine men learned more concerning how Uri, or Ui, had been founded by the ancients, and how several hundreds of them had been destroyed in the tunnel's destruction by a violent temblor. The machine men had found some of the ancient bones in their exploration of the place.

The machine men assisted the Urum in bettering their metal spheres, giving forth all their extensive knowledge of space navigation to aid the perfection of the elementary efforts achieved by the Disci. They learned that the Oaos were kept in the air easily by gaseous principles the Urum had learned from close examination of the Eiuks, but in space another more rapidly exhaustible power was necessary to maintain the Oaos in flight.

The knowledge of the Urum in regard to the world they lived upon was more or less obscure, though they had long ago guessed, through observation of the world's rim bordering the Land of Exhaustion, that

their world was strangely unlike the other planets they noticed through their telescopes as circling the same sun. They were also aware, either by traditional word of the ancients, or by instruments contained in the metal spheres, that the gravity beyond the rim was considerably greater than on their own side. The machine men were able to put to rest many of their conjectures and disputes regarding the immense chunk, or cosmic fragment, on which they lived.

Most interesting of all to the Disci were the trips into space on which the Zoromes conducted them in their space ship. Several trips were made to Ui, and the Urum from beyond the barrier mountains once more trod the avenues of the walled city after more than a thousand years.

With their space ship, and in company with the Disci, the machine men of Zor explored all sides of the planet fragment, and they found strange forms of life, both plant and animal, living in stranger environments. The planet fragment was an interesting freak of the cosmos, and the machine men decided to stay and exhaust its mysteries and natural wonders before moving on again.

On the advice of the Urum and the wishes of the Uum themselves, the latter were all transported by space ship over the mountains to the motherland, leaving Ui deserted and silent. Ghostly memories flitted there. At night, flaming balls fell from the skies, and the stillness by the base of the mighty peaks was no longer broken by the frightened, agonized shriek of some careless Disc who had not seen fit to cover an entrance. The incandescent globes bobbed searchingly in and out of the hollow eyes of the abandoned build-

ings, heeding the irresistible call of dawn to rise once more, perhaps forever, to the rarefied heights of the stratosphere and beyond.

Roving bands of Ooours came and hammered madly and unresisted at the massive walls surrounding the city, many of them leaping to the top

and dropping within. But they found no prey, only a vast emptiness. Once, they had heard cries of alarm and had been met with sharp pikes. Now, the tempting, palatable Disci were gone, as if swallowed by eternity. Only silent memories now haunted the deserted city of Ui.

THE END

Elegy to a Dead Satellite: Luna

by Elton Andrews

Darkness descends—and the cluttering towers
Of cities and hamlets blink into light.
The harsh brilliant glitter of day's bustling hours
Gives place to the glowing effulgence of night.
The moon—that blanched creature—the queen of the sky
Peeps wistfully down at the life-forms below,
Thinking, perhaps, of the æons rolled by
Since life on her bosom lapsed under the snow.
A dead world, and cold, this satellite bleak,
Whose craters and valleys are airless and dry;
No flicker of motion from deep pit to peak;
No living thing's ego to ask, "Why am I?"
But once, ages past, this grim tomb out in space,
Felt bustle of life on her surface now bare,
Till Time in his flight, while speeding apace,
Swept life, motion, thought away—who can know where?

DISCUSSIONS

In this department we shall discuss every month topics of interest to readers. The editors invite correspondence on all subjects directly or indirectly related to the stories appearing in this magazine.

A Correspondent Who Seems Surprised at the Favorable Reception Given to His Letters in Our Columns

Editor, AMAZING STORIES:

I hardly know what to say! My first letter to you was printed in the very next issue. I immediately wrote you another one, expecting the same. When I didn't find it in the next issue, I wrote you another letter, thanking you for *not* printing the second one, because of its inferior qualities. But it was published in the one after that, and you, in your editorial comment, stated that it was a fine letter, right after I had said that it was a poor one. What'll the readers think? Either that you hand out unmerited compliments, or that I am affecting modesty that I do not feel. Oh, well. I shall nobly accept it in the fashion of a true philosopher; we all must sacrifice a little, I suppose. Ah, me!

Mr. Edgar Rice Burroughs is the favorite science fiction author of many, including myself. Therefore many eager fans write to Discussions, requesting a story from his mighty typewriter. This is just to let those readers know that Mr. Burroughs does not read the science fiction magazines, not because he would not be interested, but because he has practically no time to read fiction. Therefore he does not see the requests in the readers' columns. The only way in which he can be persuaded to write a story for our magazine is to have the readers write to him personally at Tarzana Ranch, California. So please do so, all ye readers of AMAZING STORIES; and maybe we will have another of his fascinating tales again gracing our pages.

I have been criticised rather severely by my science fiction correspondents because of my endorsement of the possibilities of time travel. The subject has been again brought up in the Discussions column by Mr. Douglas W. F. Mayer, of England. May I enter into the discussion, Mr. Mayer?

Here's my view of time travel. The popular conception of time travel is erroneous. This conception, so often employed in science fiction stories, is that the hero gets into his trans-chronomachine (time-traveler), presses a button, and, after a period of greyness and dizziness, finds himself in the

future or the past, depending upon which button he pressed. From then on he is free to either make history in the future or to mix up and rearrange the history of the past. Then, after messing up the course of events in general, he goes back to his original period of time.

Now, it's perfectly plain that all that is pure hokey, although making an interesting, breath-taking story. I believe that my conception, though perhaps impossible, is at least more plausible than the above one. I feel that a person wishing to travel into the past may do so *only in mind*. Perhaps in the far future, when our mental capacity has been increased considerably, along with our mental powers, we will be able to see far into the past, before the initial day of our life-span, through the medium of *inherited memory*. Undoubtedly certain experiences of our ancestors have impressed themselves very faintly upon our memories, but our powers of postscriptural recollection are as yet undeveloped. A thing which is undeveloped may be termed an inverted vestigial remnant. Do you follow my train of thought? A person may travel into the past, but is unable to interrupt history's course, or to make himself known to the people of that age.

Now for traveling into the future. Some day a scientist will find a way of slowing down his own time and decreasing the rate of his metabolism. This is known as suspended animation, by which the person is put to sleep for a length of time and then awakened. This time has passed like the snap of a finger to the undergoer. It has seemed as though he closed his eyes in one year and has opened them to find himself in another year. Therefore, he has traveled into the future, but is unable to go back into the past again, except by the method described in the preceding paragraph. Is everything straightened out?

O. K. Now to get down to the real purpose of this letter. This is to announce a new organization, which, however, is not "just another club." It is known as the Junior Science Fiction Correspondence Club, usually written in the abbreviated form, JSFCC. The purposes are to further the interest in

science fiction and to allow those with that common interest to become acquainted with each other. We are an international organization, with members all over the world, but it is only now that we are being made officially existent. Membership is open to all science fiction readers of eighteen years of age or under, who wish to obtain correspondents. *There are no dues of any kind.* The director of the club is Corwin Stickney, Jr.; the secretary, Douglas Blakely. Other prominent members include Oliver E. Saari and Bob Cloud. All those who desire to join may write to Corwin Stickney, Jr., 28 Dawson Street, Belleville, N. J. Please state name, address, age, magazines purchased regularly, and favorite science fiction magazine. Also state number of correspondents desired. (Note: one or two is a safe start.) And please mention my name in connection with application. If any further information is desired, write to the director, Mr. Stickney; to Douglas Blakely, 4516 Edina Blvd., Minneapolis, Minn.; or to myself. In each case, an enclosed penny postal will be appreciated. Remember, there are no dues; this is an entirely altruistic organization.

WILLIS CONOVER, JR.,
JSFCC Shepard Avenue,
Kenmore, New York.

P. S.—Our editor, T. O'Connor Sloane, Ph.D., is now an honorary director of the JSFCC, although he may not know it.

W. C., Jr.

(We receive a number of letters from correspondents asking for what some call penpals. The JSFCC ought to help some of these. We thank you for the honorary directorship. Our personal feeling about time travelling is that it will do in fiction, but will never be brought about.—EDITOR.)

Comments on Authors and Notice of a New Magazine

Editor, AMAZING STORIES:

We have been reading your magazine for the last few years, and wish to offer these few lines in appreciation for the many hours of enjoyment you have provided us. Of course, a story every now and then doesn't appeal to us, but they are very rare indeed. We and a few science-fictionally inclined friends often gather together to discuss various stories and authors. Here is what the general opinion concerning the writers is:

Edward Elmer Smith: His interesting stories appeal to the majority of our friends whose interest lies in science fiction. Mr. Smith's stories are not only chock-full of

science, but they also have human interest in them, which is more than we can say for some of your other authors.

John Russel Fearn: Although Mr. Fearn's creations are interesting throughout, he is not liked as well as he should be. Many readers dislike this author's stories because they contain science which is, shall we say—too illogical? Frankly, we have nothing against his stories, even considering the aforementioned fact. His best yarns were: "Liners of Time," "The Intelligence Gigantic," and "Mathematica" which was published in one of your contemporaries. We are anxiously awaiting the appearance of "Zagribut," the sequel to "Liners of Time."

David H. Keller: Praise is especially directed to Dr. Keller, whose stories are always written with the human view-point in mind. For instance, take "Life Everlasting." This story was truly a master-piece, one which we will always remember. Hurry up and print "The Fireless Age," we know it will be good.

Jack Williamson: Although this author is not consistently good, he is better than the usual run. More from Jack will not be amiss.

Those are probably the best liked of your writers, with the possible exception of Fearn, who is either well liked or well disliked. We agree with the former group.

Incidentally, your readers may be interested to know that there is a new fan magazine being published. The title is Fantasy Fiction Telegram, and provides the active fan with news, articles and fiction. A free copy will be mailed to anyone enclosing a 13c stamp to cover postage and mailing.

ROBERT A. MADLE and JACK AGNEW,
333 East Belgrade St.,
Philadelphia, Pa.

(Your commentaries on our authors are at once interesting and valuable. You speak of Dr. Keller. His story "The Fireless Age" has appeared.—EDITOR.)

Suppose We Always Received Such Cheering Letters as This

Editor, AMAZING STORIES:

AMAZING STORIES magazine first took my fancy last summer when I saw it on a store counter, so I immediately bought it and from then on I wished I had purchased your magazine many months before I did.

The stories about space travel and other planets interest me greatly because that is my favorite subject and I really believe that in the future men from this earth will visit other worlds and I hope to live to see the day when this is first attempted.

I have no great sympathy with those people, who write letters to your magazine and say nothing but abuse. This is the first fan letter I've ever written to any magazine and I don't believe in writing one unless a person has something nice to say. So here's to you and your magazine, Mr. Editor, and may you publish it for many years to come.

W. WALBURTON,
595 Desiriac St.,
Sudbury, Ontario, Canada.

(Such letters as this one are highly appreciated by an Editor, who is trying to please his clientele. We thank you for it.—EDITOR.)

A Plea for Stories By Some Old Time Authors

Editor, AMAZING STORIES:

I have just reread for perhaps the twentieth time "The Prince of Liars" by L. Taylor Hansen, which appeared in your October, 1930, issue. In the days when you printed stories like that you were a truly worthwhile magazine. Your dignified, individual size was also an asset. If you would print some of Hansen again along with some of the following, I, and I am sure many of your other older readers will remain steady customers: John Taine, Clare W. Harris, Cyril G. Waites, G. P. Wertenbaker, Earl L. Bell, Aladra Septama, S. P. Meek, George McLociard, J. Schlossel. Wesso and Paul would be a welcome variation from Morey, who is simply trying to do too much at once.

A. GNAEDINGER,
25 Pierreport St.,
Brooklyn, N. Y.

(If you will study our recent issues you will find stories by some well known authors presented. Our trouble is that we have limited space, but we are not forgetting old-time contributors.—EDITOR.)

Number of Installments of Serials to Be Published in AMAZING STORIES

Editor, AMAZING STORIES:

Congratulations on the return of the Comet-Tail title. Now all we want is straight edges and—but why go on? We live in hope, and die in despair. I do wish you would tell us the number of installments it takes to complete the serials now running.

If anybody wishes to buy back numbers of the monthly or quarterly, I have complete sets of both to dispose of, also an annual. This missive is from a dyed in the

wool fan, who has been reading this mag (or rag) since the beginning, and has tried, unsuccessfully to break the habit several times.

HARRY BOOSEL,
1623 East 55th,
Chicago.

First Class Member,
Science Fiction League No. 10.

(We are trying to keep down the number of installments of serials. If two sections will take care of them we are more pleased than if three are required. You must keep on living in hope and even die in hope.—EDITOR.)

A Good Word for the Covers of Our Magazine and for Its Authors

Editor, AMAZING STORIES:

I'm terribly rushed at present and much as I'd like to write you a long and voluminous missive I cannot do so.

However let me congratulate MOREY and YOU for the finest cover that I've ever seen on AMAZING STORIES. I've just completed a course here at "Penn State" in the appreciation of Art and now I can enjoy Morey's covers more than ever.

Let me congratulate you, also, on the fine authors you are now securing and the fine cover for last month, too. Please continue the fine covers throughout 1937.

RICHARD FRANK,
333 South Burrowes St.,
State College, Penna.

Back Numbers of AMAZING STORIES For Sale

Editor, AMAZING STORIES:

This is the first letter I have written you, although I have read nearly all the magazines that you have published. The magazine has always held a fascination for me, and even now I am still looking over the old copies, trying to figure out which were the best stories. I have on hand most of the AMAZING STORIES from 1926 to 1931 which I would like to sell. I know that quite a few readers have sent in requests for back numbers. I would be glad to send a price list to any one that will send me a stamped envelope.

LAWRENCE CHILTON,
5304 Magazine Street,
New Orleans, La.

(You will find numerous inquiries for back issues of AMAZING STORIES published in "Discussions." We sometimes send names of those having back numbers for sale to inquiring readers. We have done so with your name and address.—EDITOR.)

A Most Characteristic Letter From Canada, Not the First By This Writer

Editor, AMAZING STORIES:

Well, I've finally buckled down to the everlasting ding-donging of the "inner voice," and decided to herewith pen another offensive missive—pardon me, missile, to you and the dear old mag—long may she wave! Watch out—ye editorial staff, the nut—that's me, is loose again. "I know it," sez you. "Oh yeah!" sez me.

Now that that bit of fool's foolishness is off my chest for a spell, I settle down to more sensible things—(If that's possible—Ed.)

On page 77 of Feb's AMAZING you publish your desire (humph! Ed) for more letters to print in Discussions. Am I to understand the readers aren't writing as much as they used to? If that's so, well, here's my feeble attempt to help fill up Discussions. (feeble is right!—Ed.)

A bone to pick with you, sir! Why in everlasting-pink-toed-alligator-eared hippopotomouses (groan—Ed) did AMAZING become a bi-monthly? It can't be because of lack of stories, you always said you had plenty (so what!—Ed). Were the finances low? Yeh! Hold a raffle, that seems to be the style nowadays. Raffle off the "Skylark" yarns, we readers'll bite. Or—make AMAZING 200 pages for 25c, a bi-monthly issue wouldn't seem so bad then. (sez you!—Ed.)

Well, the last letter I wrote you was way back in early '35. Since the February '35 issue, the yarns I've liked the best, were:

"Earth Rehabilitators, Consolidated"—a nifty yarn. Kostkos is a good writer. I rank him with Doc Smith, Williamson, Campbell and the rest of the top-notchers.

"Mosquito Army"—I've read this story twice so far. That may give you an idea of what I think of it.

"Martian Mail"—Burt is another one of my top-notch authors. Read this story twice also.

I thought the April '35 cover good, too. "White City" read twice, good. "Gypsies of Thos"—you know that part about the mystery of the far-off stars? Like a great curving finger? I considered that as a darned good basis for another story. Ask the author, R. F. Hester, to work on it, will you, Editor Sloane?

June '35 cover—ROTTEN!

Read the "Phytic Empire" twice so far.

July '35. Weren't we, the readers, right now, Dr. Sloane? Didn't we know the old comet tail title would go great on the small

cover? Of course we did. Still, you kept hanging back and making excuses about not using it again. Aren't you ashamed of yourself that you deprived AMAZING of this big improvement for so long? You'll be sorry for yourself too, when you finally reprint the "Skylark" stories, sorry you held back for so long, I mean.

"Parasite"—a darned good yarn—read twice. Harl Vincent always manages to come through with the goods.

August '35 cover good.

"Liners Of Time"—a dandy story plus. John Russell Fearn knows his ABCs in scientification. How about another great yarn from you, Mr. Fearn? How about this—"Before Time Began"? How about it, John?

"The Never Dying Light"—read twice already. Burt, you old son ova gun, how you do tickle me where I like it when it comes to your stories.

I missed the October issue and haven't been able to get it yet.

"Maelstrom of Atlantis"—good. This story was announced away back in Dec. 1934. Why do you wait so long before publishing a story? If you can't give us a story within 6 mos. at the most after announcing it, then for the love of little fishes, keep quiet about it! Where's "Emperor of the Sahara," announced in Dec. '34? I suppose you've lost it?

Now—a posy. Your editorials still rank high with me, Editor Sloane. I suppose you're doing the best you can with the magazine—but—aw nuts! "She ain't what she used to be." I'm afraid it's struck a rut, and it doesn't look like it's going to pull out for a long time, either.

I bet you don't put this bomb in the Discussions. I won't blame you if you don't. You're human, and I must admit I've generally mussed things up this time. But, oh well, I said what I wanted to say and without making any bones of it—but, I do dare you to print this!

LESLIE A. CROUTCH,
Parry Sound, Ont.,
Canada

(We have accepted your "dare" and have published practically all of your letter. As far as Canada is concerned there has been perhaps a little confusion in the change. But it has straightened itself out by this time. Your letter recalls the words of the poet, Cowper, "England with all thy faults, I love thee still." You know you like AMAZING STORIES.—EDITOR.)

A Highly Appreciative Letter from a Steady Reader of AMAZING STORIES.

Editor, AMAZING STORIES:

I can't remember whether or not I have ever written to you before.

First allow me to address a few remarks to your most uncomplimentary critic. A certain amount of criticism is welcomed, but when the time comes that the reader is discontented with stories, authors, artists and plots; it is time that he had his head examined or at least changed his reading material to Mother Goose. One of the principal reasons why readers do not enjoy a magazine, is their inability to understand any complex phenomenon or scientific explanation. When this is the case the simplest method is to skip that part entirely, thus the reader loses some, and often the most important part of the plot. Possibly that explains why the critic took such a caustic perspective on the majority of your stories. Any science fiction requires concentration to fully enjoy and comprehend the main essentials of the story. Some readers peruse Science Fiction entirely for the entertainment obtained from the story itself; some read it merely to extract the scientific data, which it contains in abundance; and others enjoy a mixture of the two, assimilating the essentials of both.

Now a few words about the magazine. Morey is a brilliant artist. His cover for the latest number is both striking and realistic. Inside I believe that the best story is "Twin Worlds." Professor Jameson's adventures are always interesting, and they are written in a style that is unusual and realistic. Realism is the thing that should be accomplished. When an author is able to write a story of phantastic beings, and inconceivable places so that they appear to be realistic, then that author is good.

"By Jove" is not the most interesting story that I have ever read, but it is fair. From my own point of view, I think that there is too much description in it. If more time was spent on the plot and slightly less time on the narration, it would be a more engaging production.

In closing may I say that the magazine did lose much of its interest, but it is quickly rising to its old station. May I add my plea to all the others, that you once again publish the magazine as a monthly.

RICHARD LEBARON GOODWIN,
550 Seyburn Avenue,
Detroit, Michigan.

(An editor who gets such letters as this is to be congratulated. It tells its own story and is decidedly appreciative.—EDITOR.)

A Letter About the December Issue of AMAZING STORIES

Editor, AMAZING STORIES:

The December issue was very good with L. A. Eshbach's "The Meteor Miners" winning first place and "The Fall of Mercury" by Leslie F. Stone next. Miss Stone's stories are all very good. Let's have more.

My only brickbat is: We should have more "Posi & Nega" stories. I admit most of Mr. Skidmore's science is over my head, but I like the stories nevertheless.

I should like to correspond with boys or girls anywhere who are interested in stamp collecting. My age is 13.

I am hoping to see Dr. Keller, J. W. Skidmore, L. A. Eshbach and Dr. Breuer on the contents page soon.

What happened to the November issue?

JOHN WAGGONER,
Wagoner, Oklahoma.

(AMAZING STORIES is now being published as a bi-monthly. December now follows October in the issues. It is a sort of encouragement to find readers appraising authors in accordance with our views. There is always danger of the Editor pleasing himself and failing to meet the views of his readers.—EDITOR.)

Letter From a Reader of Several Years Standing

Editor, AMAZING STORIES:

Although only a high school student, I have read your "mag" for years and have already contributed to "Discussions." AMAZING STORIES is still the standard bearer for the "scientific mags" and it still leads the field. Keep up the splendid flow of yarns and authors. As I have already stated, I have read A.S. for several years and I have many back numbers. I even have one from 1926. Since many of your readers would like some of the older mags, I am willing to sell them for 15c each. They are all in good condition.

Sincerely yours,

HERMAN MILLER,
364 Hopkinson Avenue,
Brooklyn, N. Y.

(Our readers have read so many scolding letters to the Editor, that we are glad to give a more cheerful one. Irrespective of what one reader may like and another dislike, we put in the most contradictory criticisms. A perusal of the "Discussions" will show that what is one man's meat is another man's poison.—EDITOR.)

Suggestions For the Editor, and a Request For Correspondents

Editor, AMAZING STORIES:

I lead quite a lonely life since I am out on a Forest Service location and there are often times when I welcome something to do to take the monotony of time off my hands. I read AMAZING STORIES at the recommendation of a friend, and I can thank him as heartily as if he had saved my life. First, I congratulate you on the excellence of your magazine which is not beaten anywhere for first-class scientific stories. I, who am very much interested in the progress and advance of science, find a great deal of scientific data both instructive and interesting to even the most uninterested person. Second, I find the stories: "Life Everlasting," and, "Conquest of the Planets" the best that have been printed for over a year's time. I saw in the Feb. number a letter from a Mr. John Bradford of Texas which expressed also his great liking for "Life Everlasting." Any of you other readers, who really liked this story, should write in and vote in favor of having it reprinted. I also wish to add my ballot with those who have written in to wish that this magazine becomes a semi-monthly. Third, I wish to say that the drawings of Mr. Morey are excellent and if he ever goes I shall quit reading this magazine. However I hope you never see any excuse for doing without him. Fourth, I want to know if and under what circumstances you accept manuscripts. In my spare time I have been able to write a little and have had some of my manuscripts accepted. And lastly, I wish to say that I would like to correspond with any of the readers who might have an interest in geology, astronomy, and the flora and the fauna of the forest.

Since I find it necessary to have some knowledge of the latter I feel that I can write decent letters to anyone interested.

So hoping that this letter lands in the "Discussions" and that I get a nice bunch of letters from serious, interested writers.

HARRY L. ROWE,
2714 Second Ave.,
Seattle, Washington.

(We have received a number of letters from Correspondents who want that may be called "Correspondent Friends." We would be interested to know more about the results of some of these letters as given in our "Discussions." We know that some have had good results. We shall hope to hear further from Mr. Rowe about the success of his appeal for letters from interested Correspondents.—EDITOR.)

Some Notes on the Artist's Work in AMAZING STORIES

Editor, AMAZING STORIES:

I have read your magazine silently for many years but at last I have decided to come out of my shell and throw a few roses and rocks.

Last February Willis Conover knocked Charles Pizzano for a double loop by openly sneering at the latter's letter, which appeared in the December '35 issue. One of Willis' nastiest rejoinders was that in which he attacked Pizzano's criticism of Morey's work. Remarks Willis: "Suppose you had been doing your best in a particular branch of work for your company for a good many years. Would it make you feel very good to have someone say your work was of low quality?" Now, Willis, don't you honestly believe that if an artist's work is not up to standard, that he should be criticised, even though it hurts? You must admit, in all fairness, that it would be better to call him down rather than let him coast along.

In regard to Mr. Morey, I think that his covers have greatly improved in the past year and a half. His inside illustrations are still rather poor. They are so dark, sketchy, and "jumbled."

The stories as a whole are all right. Once in a while there is an exceptional one and occasionally a story just a little below par. In the last two years you have only printed one poor story, namely: "Hoffman's Widow." The story, although not badly written, was not a true science fiction story. Your October '36 issue is fine except for "Council of the Drones." I have not as yet read the serial.

I will close this long winded letter with a request for correspondents around my own age (14).

Oh, yes. One more knock. The Editor's notes are extremely nasty in their replies to criticism. Lots of luck,

RALPH MORTENSEN,
1508 Atkinson Avenue,
Detroit, Michigan

(We have been criticising Morey personally and we hope that it will have a good effect. He certainly has the technique of doing the covers in good style and we read in your letter that you feel that his covers have improved. In the case of "Hoffman's Widow," if we look at it from the standpoint of anthropology, we find lots of science in it of that type, and it certainly was not a poor story. If instead of being fourteen years old you were thirty or forty, you would take a more quiet view of the Editor's replies to criticism.—EDITOR.)

**A Voice From Australia. The People of That
Continent Always Write Favorable
Letters To Us.**

Editor, AMAZING STORIES:

I read that some people grumble because *AMAZING STORIES* does not publish a sufficient quantity of stories, but look at the quality!

I consider your present policy to be best, in publishing one serial, one or two novels, and the rest of novelette length. Too many short stories become monotonous.

My bookseller tells me that *AMAZING STORIES* sells best, and no wonder! At the rate it is improving your rivals will soon feel like a platypus chasing a kangaroo. Of course I do not like all that is published, but we must remember that "one man's meat is another man's 'poisson'." (Excuse my touch of French.)

My one regret is that having gone bi-monthly there is no increase in the number of pages, so I hope that, by the time this letter reaches you, I will be calling at the news-agent's every month, otherwise by then I will hardly be able to crawl owing to my enforced dieting.

I wish to inform Mr. G. R. Griffin that in Australia we get all three *st-f* magazines and when we "Aussies" say *AMAZING* is best it is a dinkum criticism and not just hot air.

Yours till *AMAZING* has stiff covers and 500 pages,

HOWARD F. POLLARD
Subiaco, Perth,
West Australia.

(Thanks for your letter. It is such favorable letters as yours that operate to encourage an editor, who has the vain and impossible task of pleasing every one of his readers. Australia seems to like us. We seldom get any severe criticisms from that continent. The French, or shall we say Parisian, touch in your letter we highly approve of.—EDITOR.)

**A Nice Letter From an English Boy; Their
Letters Are Always Nice.**

Editor, AMAZING STORIES:

This is the first letter I have ever written to any science-fiction magazine, although I have been reading *AMAZING* for some time. Here are some brickbats, bombs or other deadly missiles.

1. Misprints. Your printer and your proof reader must be too busy doing something else. A whole line upside down in the December issue! The covers, too often have misprints on them as on the June 1936 issue.

(Who is William Lemke anyhow?) 2. Not enough stories. One of your rivals runs nine per issue sometimes. The April issue of *AMAZING* had four and one a serial. 3. Two part serials are long enough in a bi-monthly. 4. Rough edges. I do not mind the edges being rough, but the cover always gets torn. You should cut it smaller than the rest of the magazine to prevent this. Now for some roses. Professor Jameson. I hereby forgive you point number two (above) for including one of N. R. J.'s masterpieces. We want more. I have only read five of them so far, but they are my favorites. Would it be asking too much for two per year instead of one. E. O. Binder very good. C. A. Brandt in his "Book Reviews" said he did not think "The Man Who Could Work Miracles" would ever be filmed. I saw it yesterday, it was very good. How nice it would be if I could say "Let *AMAZING STORIES* become a monthly again," and it did! That would be a miracle! Some suggestions. Stay small size. The large size is awkward to store as book-cases are usually too small. Here is another rose. Thank you very much for the return of the comet tail title. I have nearly got over the shock of "The Moon Waits." I should like to have a correspondent in the United States who is a radio fan (transmitting) about my own age (18 years). Here's to A. S., and you'll be hearing from me again.

ALAN G. DUNN
(British Amateur Radio, 2AGK),
10 Clifton Gardens, St. George's Rd., Hull,
Yorkshire, England.

(We cannot well plead that we do our best, for who does. Each line from the linotype is in one piece so if one letter is upside down the whole line is in like state. The pages of the magazines can only hold a definite quantity of matter, and the Editorial and Discussions fill up between fourteen and eighteen pages. We sometimes fear we are giving too much of one or another author only to be told that more is wanted.—EDITOR.)

**We Hope That This Will Not Be Your Last
Letter To Our Magazine.**

Editor, AMAZING STORIES:

This is my first letter to you, and in truth, to any magazine. But I have been a steady reader of the magazine since it appeared on the news-stands so these many years ago. Needless to say I am pleased with the stories. There is something stimulating about science-fiction stories, particularly when they are so close to real science as those in "our" magazine. I have just finished reading the current, June, issue, and as usual, enjoyed it immensely.

I was especially interested in Breuer's lit-

tle gem, "The Company or the Weather." It is singularly apropos, now when the man on the street is talking of court issues.

If this is entered in "Discussions," I would like to ask for correspondents from any foreign country.

Please, ignore the many demands for change in our magazine. It is pretty good as it is, and most of us who write these letters do not have the ability to do a better job than you are doing.

EUGENE KINGSLEY,
5716 S. E. 104th,
Portland, Oregon.

(It would be very interesting to publish letters of unfavorable criticism and no others some time in "Discussions" but we get so few that they would hardly fill the requisite columns. You have given Dr. Breuer's story the right name. We see no immediate prospect of change in our magazine. No one would be more sorry than the writer of these lines to see it materially changed.—EDITOR.)

A Correspondent Who Does Not Care for Dr. Breuer's "Short, Short Story." These Are Hard to Write, But We Think That Our Author Can Do It.

Editor, AMAZING STORIES:

Despite the fact that a few of your readers continuously submit derogatory remarks to "Discussions," I can sincerely state that AMAZING has improved tremendously since the bi-monthly issuing was adopted. For instance in the current issue all stories were good or excellent, with the exception of Dr. Breuer's unusually short contribution. Although Miles J. Breuer has written some excellent s-f. he fell down this time. Especially good was Skidmore's story of Donald Millstein, scientific detective extraordinary. I recognized this story as a sequel to "The Velocity of Escape."

ROBERT A. MADLE,
333 E. Belgrade St.
Philadelphia, Pa.

(It so happens that Dr. Breuer is one of our most admired authors and his "short short story" we considered quite clever. We thank you for your good wishes and appreciation.—EDITOR.)

A Correspondent Pleased Because We Published His Former Letter. So Here Is Another Letter From the Same Person.

Editor, AMAZING STORIES:

Well, well, well, was I surprised (or wasn't

I) when I saw my letter in print? Naturally I didn't think it would get much farther than the waste basket, but so what? Thanks, anyway.

Now I shall get down to business and pass my official approval on the June issue of AMAZING. First, the cover. VERY GOOD. While the April cover was very good in-so-much as the technical part is concerned I believe that the June cover had more "life" in it. The painting as a whole was one of the best for quite a while.

Next, I shall analyze "Murder by Atom" by quoting my thoughts as I read it. "Hmmmmm, sounds good." (First page or so finished) "Darn it, I thought it would be good, but it's just another 'mad scientist's revenge plot reshaped.'" (A few chapters have now been read) "Say, not so bad at that. Lousy beginning but it warms up to a pretty good story." (Later) "By Jove, this is really a good story, yes sir, plenty good." . . . and that, dear Ed., is just what I think of "Murder by Atom." I put it at the head of the list.

The last installment of "By Jove" was as good as the other two. I still say it's the best serial since the "fall." When do we hear from Walter Rose again?

"The Company or the Weather" was good for what it was, it couldn't have been longer, yet it was too short, if you get what I mean (I don't).

Now, when it comes to passing judgement on "The Crystalline Salvation" all I can say is: "Pretty good here, pretty bad there," which really doesn't mean anything as far as the story is concerned. Never-the-less it held my interest through the entire text.

As for "Crawling Terrors," it reminds me of old beans baked again with some new flavoring added. Plot—OLD. Writing—GOOD.

In other words you get the idea that I think the June issue of Am. S. neither outstanding, nor terrible. Just an average issue that keeps up the sales quota, but doesn't produce any lasting name in scientific, nor deduct from the cause,

T. BRUCE YERKE,
157 N. Alexandria Ave.,
Los Angeles, California.

(Thanks for your appreciation. We try to keep up the standard of "Discussions" by publishing good and interesting letters. The strength of the section is due to our correspondents. Our own comments are short.—EDITOR.)



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